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**DEPARTMENT OF DEFENSE  
IN-HOUSE RDT&E ACTIVITIES**

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30 OCTOBER 1979

**Management Analysis Report...**

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DEPARTMENT OF DEFENSE IN-HOUSE RDT&E ACTIVITIES.

HAROLD F. DAVIDSON

Management Analysis Rept.

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30 October 1979

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Prepared for:

US ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND  
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## FOREWORD

THIS REPORT WAS PREPARED FOR THE US ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND AT THE DIRECTION OF THE DEPUTY CHIEF OF STAFF FOR RESEARCH, DEVELOPMENT AND ACQUISITION. THIS EDITION IS THE THIRTEENTH OF A SERIES THAT WAS INITIATED IN 1966.

EACH IN-HOUSE RDT&E ACTIVITY OF THE DEPARTMENT OF DEFENSE IS DESCRIBED ON ONE PAGE IN THIS COMPILATION. THE DATA FOR 1979 ARE SUMMARIZED IN TABLES PRECEDING THE MAIN TEXT AND CHARTS AND TABLES ARE PROVIDED FOR EACH SERVICE SHOWING ORGANIZATIONAL RELATIONSHIPS AND COMMAND CHAINS.

ALL CURRENT DOD RDT&E ACTIVITIES WHICH MEET THE REPORT REQUIREMENT OF HAVING AT LEAST 25 PER CENT OF THEIR BUDGET IN RDT&E FUNDS ARE LISTED IN THE CONTENTS ALPHABETICALLY WITHIN EACH DEPARTMENT. SOME T&E FACILITIES WHICH DO NOT MEET THE REQUIREMENT PREVIOUSLY NOTED ARE ALSO LISTED BY SPECIAL REQUEST. ORGANIZATIONAL CHANGES DURING FY 1979 APPEAR IN APPENDIX I.

DOD INSTRUCTION 7700.9 WHICH HAS BEEN THE BASIS FOR THIS REPORT SINCE ITS INCEPTION HAS BEEN REPLACED BY A TRI-SERVICE REGULATION, AR 70-63 NAVCOMPTIST 7044.5D, AFR 80-26, ENTITLED DOD IN-HOUSE RDTE ANNUAL ACTIVITIES REPORT, 1 NOVEMBER 1978. APPENDIX II CONTAINS MANY OF THE DEFINITIONS USED IN THIS REPORT AND ARE PROVIDED AS AN ADDITIONAL AID IN USE OF THE REPORT. APPENDIX III LISTS SELECTED ABBREVIATIONS AND ACRONYMS. APPENDIX IV LISTS SELECTED KEY WORDS WITH PAGE REFERENCES.

EVERY EFFORT HAS BEEN MADE TO PROVIDE ACCURATE INFORMATION, PARTICULARLY FISCAL DATA. ALL NUMBERS AND STATEMENTS HAVE BEEN THOROUGHLY EXAMINED AND IN ALMOST ALL CASES, REVIEWED WITH THE SUBMITTING AGENCY TO INSURE CORRECTNESS AND CLARITY.

THIS YEAR A NEW FEATURE HAS BEEN ADDED. THE ARMY RESEARCH OFFICE, THE OFFICE OF NAVAL RESEARCH AND THE AIR FORCE OFFICE OF SCIENTIFIC RESEARCH ARE SHOWN FOR THE FIRST TIME.

IT IS DESIRED THAT THIS PUBLICATION BE GIVEN WIDESPREAD DISTRIBUTION IN THE DOD LABORATORIES AS AN INTERNAL MANAGEMENT DOCUMENT AT THE DIRECTOR AND COMMANDING OFFICER LEVEL AS WELL AS AT THE BENCH LEVEL IN ORDER TO ALLOW PERSONNEL AN OPPORTUNITY TO FAMILIARIZE THEMSELVES WITH THE FUNCTIONAL CAPABILITIES OF OTHER DOD LABORATORIES. IT IS HOPED THAT BY THIS MEANS LABORATORY SCIENTISTS AND ENGINEERS WILL BE ENCOURAGED TO COMMUNICATE WITH EACH OTHER ON COMMON PROBLEMS OF INTEREST TO THEIR SERVICE LABORATORIES AS WELL AS TO COMMUNICATE WITH LABORATORIES OF THE OTHER SERVICES.

SINCERE APPRECIATION IS EXTENDED TO MRS. EVELYN HUGHES AND HER ASSOCIATES OF THE US ARMY MANAGEMENT SYSTEMS SUPPORT AGENCY FOR THEIR EFFORTS AND ASSISTANCE IN PROVIDING A COMPUTER PRINTOUT FROM WHICH THIS REPORT IS PRINTED. SINCERE APPRECIATION IS ALSO EXTENDED TO MRS. JEANETTE MERRITT FOR HER KIND ASSISTANCE, AND TO MR EUGENE GROSECLOSE OF USAMSSA FOR HIS TECHNICAL TROUBLE SHOOTING WHICH MADE A COMPUTER PRINTOUT POSSIBLE. MR. FLOYD PURCE OF THE DEFENSE PRINTING SERVICE IS ALSO DESERVING OF A NOTE OF GRATITUDE FOR HIS EFFORTS IN PRINTING THIS DOCUMENT IN A THOROUGHLY PROFESSIONAL MANNER.

ADDITIONAL COPIES OF THIS DOCUMENT MAY BE OBTAINED BY WRITING THE DEFENSE TECHNICAL INFORMATION CENTER, BUILDING 5, CAMERON STATION, ALEXANDRIA, VIRGINIA 22314.

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# SUMMARY

## DEPARTMENT OF DEFENSE IN-HOUSE RDT&E FACILITIES

### PROGRAM DATA FOR FY 1979

	(MILLIONS)
TOTAL ANNUAL PROGRAM	8372.823
TOTAL INHOUSE PROGRAM	3362.647
TOTAL RDT&E PROGRAM	4892.117
TOTAL INHOUSE RDT&E	2230.610
TOTAL ANNUAL OPERATING COST	911.315

### PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	25421	832	6243
CIVILIAN	65621	3519	27413
TOTAL	91042	4351	33656

### PHYSICAL FACILITIES (END OF FY 1979)

ACRES	9204499
SPACE (THOUSANDS OF SQ FT)	
LABORATORY	29761.125
ADMINISTRATIVE	11111.955
OTHER	57312.700
TOTAL	98185.780
COST (MILLIONS)	
REAL PROPERTY	4821.210
EQUIPMENT	4185.260
TOTAL	9006.470

TABLE 1. ARMY ROTCE ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1979

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL	INHOUSE	TOTAL	INHOUSE	TOTAL	MIL	CIV	PHD	PHD	PHD	PHD	PHD	PHD	PROF
AEROMEDICAL RESEARCH LABORATORY	4,789	3,771	3,771	3,159	77	77	11	11	4	4	27	21	21	
AIR DEFENSE BOARD	7,610	2,990	2,990	3,495	117	86	0	0	0	0	17	14	14	
AIRBORNE BOARD	2,990	10,748	6,553	1,427	87	40	0	0	0	0	17	4	4	
ARMOR AND ENGINEER BOARD	10,748	0,082	38,692	6,553	227	102	0	0	2	107	18	18	18	
ARMY RESEARCH OFFICE	31,774	23,676	19,632	0,082	358	175	0	0	33	2	34	34	34	
ATMOSPHERIC SCIENCES LABORATORY	4,782	4,782	2,446	7,128	79	36	0	0	2	33	8	8	8	
AVIATION BOARD	10,848	10,848	7,128	7,128	231	93	0	0	1	33	14	14	14	
AVIATION DEVELOPMENT TEST ACTIVITY	7,291	5,658	6,317	4,684	66	100	0	0	0	13	26	26	26	
AVIATION ENGINEERING FLIGHT ACTIVITY	48,519	19,018	44,841	17,550	24	536	0	0	35	11	271	271	271	
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	15,332	9,125	10,401	5,504	12	211	0	0	5	8	133	133	133	
AVIONICS R & D ACTIVITY	48,644	36,970	45,854	34,748	26	755	2	100	10	390	390	390	390	
BALLISTIC RESEARCH LABORATORY	0,000	0,000	0,000	0,000	66	121	25	10	41	54	54	54	54	
BIOLOGICAL LABORATORY	74,961	48,354	58,966	37,320	150	757	23	46	78	451	451	451	451	
CHEMICAL SYSTEMS LABORATORY	12,157	9,527	5,364	3,454	14	263	1	32	4	109	109	109	109	
COLD REGIONS RCE LABORATORY	8,290	8,290	4,045	4,045	282	22	1	0	18	7	7	7	7	
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	55,559	12,319	34,590	9,749	14	165	0	3	7	103	103	103	103	
COMMUNICATIONS - ELECTRONICS BOARD	2,199	2,199	1,263	1,263	62	31	0	0	0	43	43	43	43	
COMMUNICATIONS R & D COMMAND	59,228	6,274	49,157	5,431	28	421	0	10	13	271	271	271	271	
CONSTRUCTION ENGINEERING RESEARCH LAB	10,537	6,684	6,945	5,330	3	204	1	30	2	133	133	133	133	
DOUGLAS PROVING GROUND	24,253	21,397	17,594	15,306	150	619	1	15	10	73	73	73	73	
ELECTRONIC PROVING GROUND	26,482	19,594	10,162	5,980	587	213	0	1	17	56	56	56	56	
ELECTRONIC WARFARE LABORATORY	86,662	33,307	46,159	24,202	8	411	1	9	17	248	248	248	248	
ELECTRONICS TECHNOLOGY AND DEVICES LAB	28,454	14,275	22,024	11,876	0	278	0	33	0	169	169	169	169	
ENGINEER TOPOGRAPHIC LABORATORIES	25,565	10,402	23,253	8,994	15	299	1	14	9	173	173	173	173	
ENGINEER WATERWAYS EXPERIMENT STATION	58,665	47,240	16,227	14,218	14	1381	0	81	17	493	493	493	493	
FIELD ARTILLERY BOARD	3,624	3,624	1,242	1,242	152	37	0	0	29	3	3	3	3	
FINE CONTROL & SMALL CAL. WPNS SYSTS LAB	38,318	20,244	23,264	12,089	13	566	0	22	11	370	370	370	370	
HARRY OLANO LABORATORIES	169,707	48,100	72,769	33,019	16	1148	1	57	5	453	453	453	453	
HUMAN ENGINEERING LABORATORY	9,443	8,098	8,621	7,292	33	142	1	15	10	103	103	103	103	
INFANTRY BOARD	3,226	3,226	1,563	1,563	122	55	0	1	3	5	5	5	5	
INSTITUTE OF DENTAL RESEARCH	3,701	2,641	2,268	1,208	80	26	2	2	40	11	11	11	11	
INSTITUTE OF SURGICAL RESEARCH	4,322	4,322	2,057	2,057	149	90	22	6	51	19	19	19	19	
INTELLIGENCE & SECURITY BOARD	3,411	1,041	2,759	1,041	93	24	0	2	23	8	8	8	8	
KARAJALEIN MISSILE RANGE/MARSHALL ISLANDS	108,660	5,670	100,940	4,890	27	103	0	1	17	52	52	52	52	
LARGE CALIBER WPNS SYSTS LAB	157,303	71,159	130,292	57,348	28	1763	0	81	23	1088	1088	1088	1088	
LETTERMAN ARMY INSTITUTE OF RESEARCH	9,060	9,060	6,413	6,413	170	104	31	18	125	56	56	56	56	
MATERIALS AND MECHANICS RESEARCH CENTER	36,604	20,018	25,691	15,902	18	604	1	61	10	190	190	190	190	
MATERIAL SYSTEMS ANALYSIS ACTIVITY	21,263	15,120	16,564	10,416	29	411	0	22	13	315	315	315	315	
MATERIAL TESTING DIRECTORATE	49,377	48,033	34,360	33,272	214	703	0	8	23	446	446	446	446	
MEDICAL BIOENGINEERING R&D LABORATORY	4,645	4,455	3,561	3,371	34	102	3	15	17	39	39	39	39	
MEDICAL R & D COMMAND	27,299	27,299	25,550	25,550	57	92	21	0	39	2	2	2	2	
MEDICAL RSCM INST OF INFECTIOUS DISEASES	12,732	12,732	8,665	8,665	308	100	48	26	77	70	70	70	70	
MISSILE RSCM & DEV. CMD.	100,185	65,825	66,871	41,406	28	973	0	42	19	600	600	600	600	
MOBILITY EQUIP R & D COMMAND	245,790	43,344	72,736	30,448	40	1142	1	21	17	378	378	378	378	
NATICK R&D COMMAND	52,091	39,188	34,353	23,722	104	1083	7	70	28	446	446	446	446	
NIGHT VISION & ELECTRO OPTICS LABORATORY	24,816	18,779	37,276	13,895	32	459	0	29	7	203	203	203	203	
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	24,816	12,203	24,129	11,516	30	328	2	132	21	189	189	189	189	
RSCM INSTITUTE OF ENVIRONMENTAL MEDICINE	4,903	4,903	3,935	3,935	81	94	9	18	40	44	44	44	44	
SIGNALS WARFARE LABORATORY	124,953	5,656	11,087	1,730	69	168	0	5	29	51	51	51	51	
TANK-AUTO R & D COMMAND	170,408	23,952	65,371	13,448	40	795	3	15	38	342	342	342	342	
TROPIC TEST CENTER	4,033	3,822	2,807	2,616	60	61	0	1	4	9	9	9	9	
WALTER REED ARMY INSTITUTE OF RESEARCH	27,571	18,954	18,954	18,954	473	440	153	63	327	166	166	166	166	
WHITE SANDS MISSILE RANGE	167,295	144,020	135,495	112,982	922	2750	1	46	432	1024	1024	1024	1024	
YUMA PROVING GROUND	45,223	45,223	38,333	38,333	383	603	6	0	41	76	76	76	76	
TOTALS	2584,024	1116,362	1463,932	784,243	6642	22577	381	1272	2108	10134	10134	10134	10134	



TABLE 3. NAVY ROT&amp;E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1979

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA							
	TOTAL INHOUSE	TOTAL ROTEE	INHOUSE ROTEE	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PHD PROF MIL	PHD PROF CIV			
AEROSPACE MEDICAL RESEARCH LABORATORY	6.775	5.212	5.662	4.113	51	118	20	19	26	50		
AIR DEVELOPMENT CENTER	181.196	89.336	127.081	61.190	290	2109	4	27	86	1085		
AIR PROPULSION CENTER	28.627	21.044	24.458	18.304	8	587	0	0	8	155		
AIR TEST CENTER	123.240	97.914	66.311	50.801	1565	2001	3	9	193	351		
ARCTIC RESEARCH LABORATORY	10.376	0.056	8.841	0.000	3	0	0	0	2	0		
ATLANTIC FLEET WEAPONS TRAINING FACILITY	18.043	3.801	0.239	0.202	100	34	0	0	30	19		
BIOSCIENCES LABORATORY	3.563	0.895	2.446	0.591	9	6	2	0	5	0		
CIVIL ENGINEERING LABORATORY	26.777	13.923	22.850	11.724	16	309	1	28	8	170		
CLOTHING & TEXTILE RESEARCH FACILITY	2.156	1.989	1.060	1.060	1	55	0	1	1	37		
COASTAL SYSTEMS CENTER	46.898	25.547	33.067	16.980	111	621	0	21	12	269		
DAVID W. TAYLOR SHIP R&D CENTER	177.244	109.356	125.978	73.218	78	2489	1	126	22	1166		
DENTAL RESEARCH INSTITUTE, NTC	1.242	1.242	0.597	0.697	29	18	12	3	16	4		
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	3.312	1.567	3.151	1.306	14	33	1	7	5	23		
EXPLOSIVE ORDNANCE DISPOSAL FACILITY	9.173	5.406	3.648	1.677	36	165	0	1	10	41		
HEALTH RESEARCH CENTER	2.927	2.927	2.371	2.371	33	80	7	10	16	38		
MEDICAL RESEARCH INSTITUTE	14.385	13.193	11.269	10.077	249	240	69	41	88	95		
MEDICAL RESEARCH UNIT NO.2	2.625	2.496	2.057	2.057	31	54	6	3	9	4		
MEDICAL RESEARCH UNIT NO.3	2.506	1.203	1.913	0.610	27	54	6	12	10	54		
NATIONAL PARACHUTE TEST RANGE	15.967	11.886	10.017	8.551	202	261	0	0	12	19		
OCEAN R & O ACTIVITY	32.424	14.914	29.891	13.618	10	261	3	47	10	216		
OCEAN SYSTEMS CENTER	241.687	119.125	159.562	85.889	321	2470	0	165	127	1286		
OFFICE OF NAVAL RESEARCH	396.509	15.192	264.738	14.095	31	398	3	55	23	92		
ORDNANCE MISSILE TEST FACILITY	5.741	3.494	4.066	2.225	86	54	1	0	33	6		
PACIFIC MISSILE TEST CENTER	283.631	175.942	112.249	78.574	1060	3743	3	9	271	992		
PERSONNEL RESEARCH & DEVELOPMENT CENTER	17.112	8.961	13.579	7.172	27	267	1	79	9	171		
RESEARCH LABORATORY	220.818	181.726	188.575	149.483	143	3251	0	596	27	1539		
SUBMARINE MEDICAL RESEARCH LABORATORY	2.487	2.487	1.960	1.960	30	62	10	12	14	33		
SURFACE WEAPONS CENTER	308.606	149.335	213.932	97.873	125	4607	3	231	61	2117		
UNDERSEA RANGES DEPARTMENT	32.621	22.860	25.028	21.828	44	38	0	1	8	26		
UNDERWATER SYSTEMS CENTER	286.435	113.554	133.843	56.111	99	2701	1	98	26	1397		
WEAPONS CENTER	283.951	151.279	181.390	102.713	583	3957	0	123	29	1387		
WEAPONS EVALUATION FACILITY	7.547	6.741	2.193	1.732	147	107	1	7	15	39		
TOTALS	2798.701	1374.543	1786.122	898.802	5550	31150	158	1726	1212	12881		

TABLE 4. NAVY ROTEE FACILITIES DATA, P. 179

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROPERTY	EQUIPMENT
	ACRES	LABORATORY	ADMIN	OTHER		
PENSACOLA, FL.	6	172.546	11.768	6.400	3.130	4.033
JOHNSVILLE, PA.	840	825.000	83.070	654.000	33.000	51.754
TRENTON, N. J.	68	376.704	37.973	211.766	50.979	11.516
PATUXENT RIVER, MD.	7106	951.106	363.500	3501.167	161.414	23.521
BARRON, AK.	4987	47.310	15.987	368.049	13.158	1.675
ROOSEVELT ROADS, P. R.	3602	0.000	14.957	154.005	10.902	96.798
OAKLAND, CA.	5	77.625	8.731	34.646	1.000	5.400
PORT HUENEME, CA.	30	81.840	71.748	44.158	7.593	3.429
NATICK, MA.	1	10.000	7.000	3.000	0.440	0.975
PANAMA CITY, FL.	665	346.019	38.150	247.230	33.214	17.280
BETHESDA, MD.	324	1709.038	102.847	245.262	70.908	69.889
GREAT LAKES, IL.	0	13.919	6.923	15.714	0.000	0.578
MONTEREY, CA.	0	1.362	4.858	10.594	0.000	0.883
INDIAN HEAD, MD.	1087	34.681	16.936	53.249	4.247	1.004
SAN DIEGO, CA.	2	11.177	4.500	0.000	1.000	0.613
BETHESDA, MD.	4	145.868	9.400	40.259	4.700	9.033
MANILA, PHILIPPINES	0	10.370	3.500	0.600	0.000	0.807
CAIRO, EGYPT	5	41.068	8.962	55.350	1.713	0.736
EL CENTRO, CA.	484608	6.400	56.670	1142.407	33.061	20.629
BAY ST. LOUIS, MS.	5	63.976	18.990	25.794	9.000	5.000
SAN DIEGO, CA.	3847	1162.394	205.889	163.233	39.507	130.640
WASHINGTON D. C.	0	0.000	86.000	0.000	0.000	0.000
WHITE SANDS, N. M.	88	108.566	30.539	78.694	5.822	10.106
POINT MUGU, CA.	27084	945.133	396.770	3490.532	143.664	133.514
SAN DIEGO, CA.	1	63.580	7.080	0.000	0.485	2.350
WASHINGTON, D. C.	798	2312.917	192.677	479.359	91.868	100.225
GROTON, CT.	1	40.514	14.099	0.000	1.105	1.806
SILVER SPRING, MO.	5380	1656.578	175.258	1285.183	90.474	85.325
NEWPORT, RI.	1042	75.603	17.339	304.954	24.182	1.305
NEWPORT, RI.	367	1059.983	241.839	581.567	45.978	53.078
CHINA LAKE, CA.	1127016	1155.058	400.259	5120.635	226.915	98.172
ALBUQUERQUE, N. M.	7	0.400	53.592	94.926	9.600	0.998
TOTALS	1668976	13506.735	2707.741	18412.883	1119.089	943.072

TABLE 5. AIR FORCE ROT&amp;E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1979

INSTALLATION	FUNDING DATA (MILLIONS \$)			PERSONNEL DATA									
	TOTAL INHOUSE	TOTAL ROT&E	INHOUSE ROT&E	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV				
AERD PROPULSION LABORATORY	91.298	90.310	14.037	51	383	3	28	32	213				
AEROSPACE MEDICAL RESEARCH LABORATORY	15.297	15.297	6.561	135	154	16	22	56	94				
ARMAMENT DIVISION	1249.527	372.980	147.406	4646	1743	28	37	851	801				
ARNOLD ENGINEERING DEVELOPMENT CENTER	131.461	124.567	14.429	87	136	5	5	48	43				
AVIONICS LABORATORY	143.291	159.592	28.862	170	774	8	32	108	427				
EASTERN SPACE & MISSILE CENTER	184.659	0.000	0.000	942	1196	2	1	120	79				
ENGINEERING & SERVICES CNTR / RD	7.845	6.173	0.301	69	15	5	2	45	11				
FLIGHT DYNAMICS LABORATORY	97.179	37.894	34.597	198	722	11	22	115	443				
FLIGHT TEST CENTER	156.504	93.354	70.324	3431	1675	1	3	136	194				
FRANK J SEILER RESEARCH LABORATORY	1.258	0.638	0.438	24	9	17	1	21	6				
GEOPHYSICS LABORATORY	60.708	51.065	26.000	120	498	7	74	41	271				
HUMAN RESOURCES LABORATORY	36.163	22.477	8.077	127	238	12	42	84	144				
MATERIALS LABORATORY	91.157	63.389	15.541	54	350	8	56	47	239				
OFFICE OF SCIENTIFIC RESEARCH	101.178	100.130	22.234	45	99	7	19	17	23				
ROCKET PROPULSION LABORATORY	38.447	36.145	11.166	176	255	2	13	64	90				
ROME AIR DEVELOPMENT CENTER	206.564	159.571	23.974	232	1091	7	56	109	592				
SCHOL OF AEROSPACE MEDICINE	22.504	16.734	10.053	393	273	57	36	109	99				
WEAPONS LABORATORY	189.263	178.135	53.005	647	464	56	49	388	240				
WESTERN SPACE AND MISSILE CENTER	87.100	1.900	1.900	356	368	4	0	231	152				
4950 TEST WING	54.218	51.984	41.147	854	1028	2	0	169	98				
6585TH TEST GROUP	25.356	16.292	6.735	325	286	3	3	74	97				
TOTALS	2980.577	1634.485	539.987	13137	11766	261	501	2865	4356				

TABLE 6. AIR FORCE ROT&amp;E FACILITIES DATA, FY 1979

INSTALLATION	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL PROPERTY	EQUIPMENT
AERU PROPULSION LABORATORY	40	229.490	41.784	105.665	56.100	193.130
AEROSPACE MEDICAL RESEARCH LABORATORY	30	73.614	5.247	87.764	21.200	27.835
ARMAMENT DIVISION	464219	320.295	976.427	10639.000	290.401	163.727
ARNOLD ENGINEERING DEVELOPMENT CENTER	39081	1092.409	182.573	561.154	378.772	60.850
AVIONICS LABORATORY	228	250.901	8.775	412.829	24.069	68.460
EASTERN SPACE & MISSILE CENTER	18133	129.369	1213.525	4510.214	370.318	406.695
ENGINEERING & SERVICES CNTR / RO	3	4.981	2.400	9.751	1.600	1.202
FLIGHT DYNAMICS LABORATORY	92	518.859	5.408	143.317	26.186	50.516
FLIGHT TEST CENTER	227071	102.125	263.504	6737.323	279.068	124.052
FRANK J SEILER RESEARCH LABORATORY	1	19.003	1000.000	0.000	1.722	1.689
GEOPHYSICS LABORATORY	358	391.903	15.006	25.823	9.717	29.700
HUMAN RESOURCES LABORATORY	13	76.369	49.759	54.680	5.487	33.182
MATERIALS LABORATORY	15	228.809	39.681	117.009	23.344	17.041
OFFICE OF SCIENTIFIC RESEARCH	0	0.000	41.300	1.700	0.000	0.000
ROCKET PROPULSION LABORATORY	68345	419.046	85.848	4.760	125.000	23.487
ROME AIR DEVELOPMENT CENTER	1517	772.193	87.767	168.762	30.351	52.996
SCHOOL OF AEROSPACE MEDICINE	74	363.855	77.980	53.176	17.581	20.401
WEAPONS LABORATORY	702	553.323	105.574	125.118	76.261	69.493
WESTERN SPACE AND MISSILE CENTER	55586	36.000	617.000	1199.000	260.000	49.900
4950 TEST WING	227	0.000	68.176	961.599	15.352	406.133
OS85TH TEST GROUP	6602	386.000	7.000	163.000	102.660	53.700
TOTALS	882348	5969.644	4895.734	26081.715	2114.989	1854.190

TABLE 7. DEPARTMENT OF DEFENSE ROT&E ACTIVITIES, PROGRAM AND PERSONNEL DATA, FY 1979

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA						
	TOTAL	INHOUSE	TOTAL ROT&E	INHOUSE ROT&E	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV	
ARMED FORCES RADIOBIOLOGY RSCH.INSTITUTE	9.521	9.521	7.578	7.578	88	128	32	20	58	42	
TOTALS	9.521	9.521	7.578	7.578	88	128	32	20	58	42	



# SUMMARY

## DEPARTMENT OF DEFENSE IN-HOUSE R&D LABORATORIES

### PROGRAM DATA FOR FY 1979

	(MILLIONS)
TOTAL ANNUAL LABORATORY PROGRAM	6193.485
TOTAL INHOUSE PROGRAM	2300.432
TOTAL ROT&E PROGRAM	3580.786
TOTAL INHOUSE ROT&E	1636.342
TOTAL ANNUAL OPERATING COST	617.604

### PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHD	TOTAL PROFESSIONALS
MILITARY	12195	788	3951
CIVILIAN	47300	3277	22812
TOTAL	59495	4065	26763

### PHYSICAL FACILITIES (END OF FY 1979)

ACRES	1705281
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#### SPACE (THOUSANDS OF SQ FT)

LABORATORY	23192.309
ADMINISTRATIVE	6242.774
OTHER	24845.731
TOTAL	54280.814

#### COST (MILLIONS)

REAL PROPERTY	2037.137
EQUIPMENT	2172.595
TOTAL	4209.732

TABLE 1A. ARMY R&amp;D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1979

INSTALLATION	FUNDING DATA (MILLIONS \$)			PERSONNEL DATA									
	TOTAL	TOTAL	INHOUSE	TOTAL	TOTAL	TOTAL	PHD	PHD	PHD	PROF	PROF	PROF	PROF
		INHOUSE	RD&E	RD&E	MIL	CIV	MIL	CIV	MIL	CIV	MIL	CIV	CIV
AEROMEDICAL RESEARCH LABORATORY	4.789	4.177	3.159	3.771	77	65	11	4	27	21	27	21	21
ATMOSPHERIC SCIENCES LABORATORY	31.906	23.676	11.402	19.632	358	175	0	22	28	94	28	94	94
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	48.519	19.018	17.550	44.861	74	536	0	35	11	271	11	271	271
AVIONICS R & D ACTIVITY	15.332	9.125	5.504	10.401	12	211	0	5	8	133	8	133	133
BALLISTIC RESEARCH LABORATORY	48.644	36.970	34.748	45.854	26	755	2	100	10	390	10	390	390
BIOMEDICAL LABORATORY *	0.000	0.000	0.000	0.000	66	121	25	10	41	54	41	54	54
CHEMICAL SYSTEMS LABORATORY	74.961	48.354	37.320	58.966	150	757	25	46	78	451	46	78	451
CULU REGIONS R&E LABORATORY	12.157	9.527	3.454	5.064	14	263	1	32	4	109	32	4	109
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	55.559	12.319	9.749	34.590	14	165	0	3	7	103	7	103	103
COMMUNICATIONS R & D COMMAND	59.228	6.274	6.330	49.157	28	421	0	10	13	271	10	13	271
CONSTRUCTION ENGINEERING RESEARCH LAB	10.537	8.684	6.945	6.945	3	204	1	30	2	133	30	2	133
ELECTRONIC WARFARE LABORATORY	86.692	33.307	24.202	46.159	85	411	1	9	17	248	9	17	248
ELECTRONICS TECHNOLOGY AND DEVICES LAB	28.454	14.275	11.876	22.024	0	278	0	33	0	169	33	0	169
ENGINEER TOPOGRAPHIC LABORATORIES	25.565	10.402	8.994	23.253	15	299	1	19	9	173	19	9	173
ENGINEER WATERWAYS EXPERIMENT STATION	58.665	47.240	14.218	16.227	16	1381	0	81	17	493	81	17	493
FIRE CONTROL & SMALL CAL. WPNS SYSTS LAB	38.318	20.244	12.089	23.264	13	566	0	22	11	370	22	11	370
HARRY DIAMOND LABORATORIES	168.707	48.100	33.019	72.769	6	1148	1	57	5	453	57	5	453
HUMAN ENGINEERING LABORATORY	9.433	8.098	7.292	8.621	33	142	1	15	10	103	15	10	103
INSTITUTE OF DENTAL RESEARCH	3.701	2.641	1.208	2.268	80	26	2	2	40	11	2	40	11
INSTITUTE OF SURGICAL RESEARCH	4.322	4.322	2.057	2.057	149	80	22	6	51	19	22	6	51
LARGE CALIBER WEAPONS SYSTEMS LAB	157.303	71.159	57.348	130.292	29	1763	0	81	23	1088	81	23	1088
LETTERMAN ARMY INSTITUTE OF RESEARCH	9.060	9.060	6.413	6.413	170	108	31	18	125	56	31	18	125
MATERIALS AND MECHANICS RESEARCH CENTER	36.604	20.018	15.902	25.691	18	604	1	61	10	190	61	10	190
MEDICAL BIOENGINEERING R&D LABORATORY	4.645	4.455	3.371	3.561	34	102	3	15	17	39	15	17	39
MEDICAL R & D COMMAND	27.299	27.299	25.550	25.550	57	92	21	0	39	2	21	0	39
MEDICAL RSCH INST OF INFECTIOUS DISEASES	12.732	12.732	8.665	8.665	308	199	48	26	77	70	48	26	77
MISSILE RSCH. & DEV. CMD.	100.185	65.825	41.406	66.871	28	973	0	42	19	600	42	19	600
MOBILITY EQUIP R & D COMMAND	245.790	43.344	30.448	72.736	80	1182	1	21	17	378	21	17	378
NATICK RED COMMAND	52.091	39.188	23.722	34.353	104	1083	7	70	28	446	70	28	446
NIGHT VISION & ELECTRO OPTICS LABORATORY	249.791	18.779	13.895	37.276	32	459	0	29	7	203	29	7	203
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	24.816	12.203	11.516	24.129	30	328	2	132	21	189	132	21	189
RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE	4.903	4.903	3.935	3.935	81	94	9	18	40	44	18	40	44
SIGNALS WARFARE LABORATORY	124.953	5.656	1.750	11.087	40	168	0	5	29	51	5	29	51
TANK-AUTO R & D COMMAND	170.408	23.952	13.448	65.371	40	705	3	15	30	342	15	30	342
WALTER REED ARMY INSTITUTE OF RESEARCH	27.571	27.571	18.954	18.954	473	440	153	63	327	166	153	63	327
TOTALS	2033.640	752.897	525.905	1030.747	2721	16394	372	1137	1206	7933	372	1137	7933

TABLE 2A. ARMY R&amp;D FACILITIES DATA, FY 1979

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL	EQUIPMENT
AEROMEDICAL RESEARCH LABORATORY	10	52.747	7.797	21.884	0.844	7.667
ATMOSPHERIC SCIENCES LABORATORY	45	52.541	26.663	13.409	7.374	19.377
AVIATION RESEARCH & TECHNOLOGY LABORATORIES	127	88.848	53.673	16.370	1.431	17.808
AVIONICS R & D ACTIVITY	0	16.000	33.500	0.000	0.000	7.098
BALLISTIC RESEARCH LABORATORY	1920	539.702	11.200	40.982	14.595	33.742
BIOMEDICAL LABORATORY *	0	0.000	0.000	0.000	0.000	0.000
CHEMICAL SYSTEMS LABORATORY	2000	579.564	84.169	405.670	22.037	26.592
COLD REGIONS R&E LABORATORY	24	80.786	30.027	128.544	7.894	6.954
COMBAT SURVEILLANCE & TGT ACQUISITION LAB	35	52.324	6.139	10.589	0.950	11.333
COMMUNICATIONS R & D COMMAND	0	72.746	4.642	0.000	0.000	10.800
CONSTRUCTION ENGINEERING RESEARCH LAB	30	76.081	34.159	0.000	3.896	4.438
ELECTRONIC WARFARE LABORATORY	6	142.936	37.617	43.502	92.766	42.961
ELECTRONICS TECHNOLOGY AND DEVICES LAB	0	89.500	30.636	1.290	0.000	14.527
ENGINEER TOPOGRAPHIC LABORATORIES	33	90.722	7.000	13.300	6.000	8.713
ENGINEER WATERWAYS EXPERIMENT STATION	722	1724.058	359.810	170.488	20.622	37.524
FIRE CONTROL & SMALL CAL. WEAPNS SYSTS LAB	391	61.182	76.990	0.000	2.295	7.770
HARRY DIAMOND LABORATORIES	2337	430.802	71.090	269.573	50.384	38.746
HUMAN ENGINEERING LABORATORY	12	22.000	26.500	29.000	4.412	3.806
INSTITUTE OF DENTAL RESEARCH	4	9.325	5.696	6.730	0.875	1.791
INSTITUTE OF SURGICAL RESEARCH	1	26.424	1.800	22.400	2.313	2.200
LARGE CALIBER WEAPONS SYSTEMS LAB	1251	204.685	184.072	128.700	8.586	66.200
LETTERMAN ARMY INSTITUTE OF RESEARCH	9	133.198	36.506	305.309	42.423	10.333
MATERIALS AND MECHANICS RESEARCH CENTER	48	389.161	83.380	160.030	16.591	16.150
MEDICAL BIOENGINEERING R&D LABORATORY	5	45.103	27.300	34.108	3.228	3.014
MEDICAL R & D COMMAND	1	0.000	33.027	0.000	0.151	0.610
MEDICAL RSCH INST OF INFECTIOUS DISEASES	43	80.854	19.820	209.699	17.824	6.946
MISSILE RSCH & DEV. CMD.	11000	663.993	318.702	428.008	131.000	90.000
MOBILITY EQUIP R & D COMMAND	1064	750.849	146.730	209.879	49.093	34.947
NATICK R&D COMMAND	2013	552.557	65.900	417.862	27.316	18.857
NIGHT VISION & ELECTRO OPTICS LABORATORY	38	180.639	27.186	20.000	22.000	50.000
RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI	0	46.110	2.559	6.100	0.000	1.795
RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE	4	60.421	18.563	28.647	3.713	3.825
SIGNALS WARFARE LABORATORY	10	3.936	32.101	3.963	2.000	9.980
TANK-AUTO R & D COMMAND	11	140.319	99.947	0.000	38.294	135.000
WALTER REED ARMY INSTITUTE OF RESEARCH	203	382.974	58.360	0.000	10.080	17.609
TOTALS	24297	7843.088	2068.265	3155.126	621.007	769.218

TABLE 3A. NAVY R&amp;D LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1979

INSTALLATION	FUNDING DATA (MILLIONS \$)				PERSONNEL DATA									
	TOTAL INHOUSE	TOTAL ADT&E	INHOUSE PDTEE	TOTAL MIL	TOTAL CIV	PHD MIL	PHD CIV	PROF MIL	PROF CIV	PREL				
AEROSPACE MEDICAL RESEARCH LABORATORY	6.775	5.212	5.662	4.113	51	118	20	17	26	50				
AIR DEVELOPMENT CENTER	181.196	89.336	127.081	61.190	290	2109	4	27	86	1085				
ARCTIC RESEARCH LABORATORY	10.376	0.056	8.841	0.000	3	0	0	0	2	0				
BIOSCIENCES LABORATORY	3.563	0.895	2.446	0.591	9	6	2	0	5	0				
CIVIL ENGINEERING LABORATORY	29.777	13.923	22.850	11.724	16	309	1	28	8	170				
CLOTHING & TEXTILE RESEARCH FACILITY	2.156	1.989	1.060	1.060	1	55	0	1	1	37				
COASTAL SYSTEMS CENTER	46.898	25.547	33.067	16.980	111	621	0	21	12	269				
DAVID W. TAYLOR SHIP R&D CENTER	177.244	109.356	125.978	73.218	79	2489	1	126	22	1166				
DENTAL RESEARCH INSTITUTION, NTC	1.242	1.242	0.697	0.697	24	18	12	3	16	4				
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	3.412	1.567	3.151	1.306	14	33	1	7	5	23				
HEALTH RESEARCH CENTER	2.927	2.927	2.371	2.371	33	80	7	10	16	38				
MEDICAL RESEARCH INSTITUTE	14.385	13.193	11.269	10.077	749	240	69	41	88	95				
MEDICAL RESEARCH UNIT NO.2	2.625	2.496	2.057	2.057	31	54	6	3	9	4				
MEDICAL RESEARCH UNIT NO.3	2.506	1.203	1.913	0.610	27	54	6	12	10	54				
OCEAN R & D ACTIVITY	32.424	14.914	29.891	13.618	10	261	3	47	13	216				
OCEAN SYSTEMS CENTER	241.687	119.125	159.562	85.889	321	2470	0	165	127	1286				
PERSONNEL RESEARCH & DEVELOPMENT CENTER	17.112	8.961	13.579	7.172	27	267	1	79	9	171				
RESEARCH LABORATORY	220.818	181.726	188.575	149.483	143	3251	0	596	27	1539				
SUBMARINE MEDICAL RESEARCH LABORATORY	2.487	2.487	1.960	1.960	30	62	10	12	14	33				
SURFACE WEAPONS CENTER	308.606	149.335	213.932	97.873	125	4607	3	231	61	2117				
UNDERSEA RANGES DEPARTMENT	32.621	22.800	25.028	21.828	44	38	0	1	8	26				
UNDERWATER SYSTEMS CENTER	288.435	113.554	133.843	56.111	99	2701	1	98	26	1397				
WEAPONS CENTER	283.951	151.279	181.390	102.713	582	3957	0	123	29	1387				
TOTALS	1910.22	1033.123	1296.203	722.641	2324	23820	147	1650	617	11167				

TABLE 4A. NAVY R&amp;D FACILITIES DATA, FY 1979

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	PROPERTY	EQUIPMENT
AEROSPACE MEDICAL RESEARCH LABORATORY	6	172,546	11,768	6,400	3,130	4,033
AIR DEVELOPMENT CENTER	840	825,000	83,000	654,000	33,000	51,754
ARCTIC RESEARCH LABORATORY	4987	47,310	15,987	368,049	13,158	1,675
BIOLOGICAL RESEARCH LABORATORY	5	77,625	8,731	34,646	1,000	5,400
CIVIL ENGINEERING LABORATORY	30	81,840	71,748	44,158	7,793	3,429
CLOTHING & TEXTILE RESEARCH FACILITY	1	10,000	7,000	3,000	0,440	0,975
COASTAL SYSTEMS CENTER	665	346,019	38,150	247,230	33,214	17,280
DAVID W. TAYLOR SHIP R&D CENTER	324	1709,038	102,847	245,262	70,908	69,889
DENTAL RESEARCH INSTITUTE, NTC	0	13,919	6,923	15,714	0,000	0,578
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	0	1,362	4,858	10,594	0,000	0,983
HEALTH RESEARCH CENTER	2	11,177	4,500	0,000	2,000	0,613
MEDICAL RESEARCH INSTITUTE	4	145,868	9,400	40,299	4,000	9,033
MEDICAL RESEARCH UNIT NO. 2	0	10,370	3,500	0,600	0,000	0,807
MEDICAL RESEARCH UNIT NO. 3	5	41,068	8,962	55,350	1,443	0,736
OCEAN R & D ACTIVITY	5	63,976	18,950	25,794	9,000	5,000
OCEAN SYSTEMS CENTER	3847	1162,394	205,889	163,233	39,507	130,640
PERSUNNEL RESEARCH & DEVELOPMENT CENTER	1	63,580	7,630	0,000	0,485	2,350
RESEARCH LABORATORY	798	2312,917	192,677	479,359	91,868	100,225
SUBMARINE MEDICAL RESEARCH LABORATORY	1	40,514	14,099	0,000	1,105	1,806
SURFACE WEAPONS CENTER	5380	1656,578	175,258	1285,183	90,474	85,325
UNDERSEA RANGES DEPARTMENT	1042	75,603	17,339	304,964	24,182	1,305
UNDERWATER SYSTEMS CENTER	367	1059,983	241,839	581,567	45,978	53,078
WEAPONS CENTER	1127016	1155,058	400,250	5120,635	226,915	98,172
TOTALS	1145326	11083,745	1650,964	9686,037	699,400	644,986

TABLE 5A. AIR FORCE RESEARCH LABORATORIES, PROGRAM AND PERSONNEL DATA, FY 1979

INSTALLATION	FUNDING DATA (MILLIONS \$)			PERSONNEL DATA									
	TOTAL	INHOUSE	ROTSE	TOTAL	INHOUSE	ROTSE	TOTAL	INHOUSE	ROTSE	TOTAL	INHOUSE	ROTSE	TOTAL
AERO PROPULSION LABORATORY	91.298	15.025	90.310	51	14.037	51	363	3	28	32	213	32	213
AEROSPACE MEDICAL RESEARCH LABORATORY	15.297	6.561	15.297	135	6.561	135	154	16	22	56	44	22	56
ARMAMENT DIVISION	1248.527	231.403	372.980	4646	147.406	4646	1743	28	37	851	801	37	851
AVIONICS LABORATORY	143.291	31.591	139.592	170	28.862	170	774	8	32	198	427	32	198
ENGINEERING & SERVICES CNTR / RO	7.845	1.968	6.173	89	0.301	89	15	5	2	45	11	5	2
FLIGHT DYNAMICS LABORATORY	97.179	37.894	93.702	198	34.597	198	722	11	22	115	443	11	22
FRANK J. SEILER RESEARCH LABORATORY	1.258	1.258	0.638	24	0.638	24	9	17	1	21	6	17	1
GEOPHYSICS LABORATORY	60.708	30.143	51.065	120	26.900	120	498	7	74	41	271	7	74
HUMAN RESOURCES LABORATORY	26.163	10.728	22.477	127	8.077	127	238	12	42	84	144	12	42
MATERIALS LABORATORY	91.157	16.745	63.389	54	15.541	54	359	8	56	47	239	8	56
ROCKET PROPULSION LABORATORY	38.447	13.468	36.145	176	11.166	176	255	2	13	64	90	2	13
ROME AIR DEVELOPMENT CENTER	206.564	27.201	159.571	232	23.974	232	1091	7	56	109	592	7	56
SCHOOL OF AEROSPACE MEDICINE	22.504	15.823	16.734	393	10.053	393	273	57	36	109	99	57	36
WEAPONS LABORATORY	189.863	64.683	178.185	647	53.005	647	464	56	49	388	240	56	49
TOTALS	2240.101	504.891	1246.258	7062	390.218	7062	6078	237	470	2070	3670	237	470

TABLE 6A. AIR FORCE RED FACILITIES DATA, FY 1979

INSTALLATION	SPACE AND PROPERTY				COST (MILLIONS \$)	
	ACRES	LABORATORY	ADMIN	OTHER	REAL	EQUIPMENT
AERU PROPULSION LABORATORY	40	229.490	41.784	105.665	PROPERTY	
AERUSPACE MEDICAL RESEARCH LABORATORY	30	73.614	5.247	87.764	56.100	193.130
ARMAMENT DIVISION	464219	320.295	976.427	10639.000	21.200	27.835
AVIONICS LABORATORY	229	250.901	8.775	412.829	290.401	163.727
ENGINEERING & SERVICES CNTR / RU	3	4.981	2.400	9.751	24.069	68.460
FLIGHT DYNAMICS LABORATORY	92	518.859	5.408	143.317	1.600	1.202
FRANK J SEILER RESEARCH LABORATORY	1	19.003	1000.000	0.000	26.186	50.516
GEOPHYSICS LABORATORY	368	391.903	15.006	25.883	1.722	1.689
HUMAN RESOURCES LABORATORY	13	76.369	49.759	54.680	9.717	29.700
MATERIALS LABORATORY	15	228.809	39.681	117.009	5.487	33.182
ROCKET PROPULSION LABORATORY	68345	419.046	86.848	4.780	23.344	17.041
ROME AIR DEVELOPMENT CENTER	1517	772.193	87.767	168.762	125.000	23.487
SCHOOL OF AEROSPACE MEDICINE	74	363.855	77.980	53.176	30.351	52.996
WEAPONS LABORATORY	702	553.823	105.574	125.118	17.581	20.401
	535648	4223.141	2502.656	11947.734	76.061	69.493
TOTALS					708.819	752.859

TABLE 7A. DEPARTMENT OF DEFENSE ROTCE FACILITIES DATA, FY 1979

INSTALLATION	ACRES	SPACE AND PROPERTY			COST (MILLIONS \$)	
		LABORATORY	SPACE (THOUSANDS OF SQUARE FEET)		REAL PROPERTY	EQUIPMENT
			ADMIN	OTHER		
ARMED FORCES RADIOBIOLOGY RSCH.INSTITUTE	10	42.335	21.049	56.834	7.911	5.532
	10	42.335	21.049	36.834	7.911	5.532
TOTALS						



TABLE 8 - ARMY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

	COMMAND CHAIN	INTERMEDIATE	COMMAND
AEROMEDICAL RESEARCH LABORATORY		MEDICAL R&D COMMAND	THE SURGEON GENERAL
ATMOSPHERIC SCIENCES LABORATORY		ELECTRONICS R&D CMD	MAT DEV & READ CMD
AVIATION R&T LABORATORY		AVIATION R&D COMMAND	MAT DEV & READ CMD
AVIONICS R&D ACTIVITY		AVIATION R&D COMMAND	MAT DEV & READ CMD
BALLISTIC RESEARCH LABORATORY		ARMAMENT R&D COMMAND	MAT DEV & READ CMD
BIONEDICAL LABORATORY		MEDICAL R&D COMMAND	THE SURGEON GENERAL
CHEMICAL SYSTEMS LABORATORY		ARMAMENT R&D COMMAND	MAT DEV & READ CMD
COLD REGIONS R&E LABORATORY		--	CHIEF OF ENGINEERS
COMBAT SURVEILLANCE & TARGET ACQUISITION LABS		ELECTRONICS R&D COMMAND	MAT DEV & READ CMD
COMMUNICATIONS R&D COMMAND		--	MAT DEV & READ CMD
CONSTRUCTION ENGINEERING RSCH LABORATORY		--	CHIEF OF ENGINEERS
ELECTRONIC WARFARE LABORATORY		ELECTRONICS R&D COMMAND	MAT DEV & READ CMD
ELECTRONICS TECHNOLOGY & DEVICES LABORATORY		ELECTRONICS R&D COMMAND	MAT DEV & READ CMD
ENGINEER TOPOGRAPHIC LABORATORIES		--	CHIEF OF ENGINEERS
ENGINEER WATERWAYS EXPERIMENT STATION		--	CHIEF OF ENGINEERS
FIRE CONTROL & SMALL CALIBER WPNS SYSTEMS LAB		ARMAMENT R&D COMMAND	MAT DEV & READ CMD
HARRY DIAMOND LABORATORIES		ELECTRONICS R&D COMMAND	MAT DEV & READ CMD
HUMAN ENGINEERING LABORATORY		--	MAT DEV & READ CMD
INSTITUTE OF DENTAL RESEARCH		MEDICAL R&D COMMAND	THE SURGEON GENERAL
INSTITUTE OF SURGICAL RESEARCH		MEDICAL R&D COMMAND	THE SURGEON GENERAL
LARGE CALIBER WEAPONS SYSTEMS LABORATORY		ARMAMENT R&D COMMAND	MAT DEV & READ CMD
LETTERMAN ARMY INSTITUTE OF RESEARCH		MEDICAL R&D COMMAND	THE SURGEON GENERAL
MATERIALS AND MECHANICS RESEARCH CENTER		--	MAT DEV & READ CMD
MEDICAL BIOENGINEERING R&D LABORATORY		MEDICAL R&D COMMAND	THE SURGEON GENERAL
MEDICAL R&D COMMAND		--	MAT DEV & READ CMD
MEDICAL RESEARCH INST OF INFECTIOUS DISEASES		MEDICAL R&D COMMAND	THE SURGEON GENERAL
MISSILE R&D COMMAND		--	THE SURGEON GENERAL
MOBILITY EQUIPMENT R&D COMMAND		--	MAT DEV & READ CMD
NATICK R&D COMMAND		--	MAT DEV & READ CMD
NIGHT VISION & ELECTRO-OPTICS LABORATORY		ELECTRONICS R&D COMMAND	MAT DEV & READ CMD

Table 8 - ARMY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

COMMAND CHAIN		
INTERMEDIATE		COMMAND
RES INST FOR BEHAVIORAL & SOCIAL SCIENCES	--	DEPUTY CHIEF OF STAFF FOR PERSONNEL
RESEARCH INSTITUTE OF ENVIRONMENTAL MEDICINE	MEDICAL R&D COMMAND	THE SURGEON GENERAL
SIGNALS WARFARE LABORATORY	ELECTRONICS R&D CMD	MAT DEV & READ CMD
TANK-AUTOMOTIVE R&D COMMAND	--	MAT DEV & READ CMD
WALTER REED ARMY INSTITUTE OF RESEARCH	MEDICAL R&D COMMAND	THE SURGEON GENERAL

TABLE 9 - NAVY RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

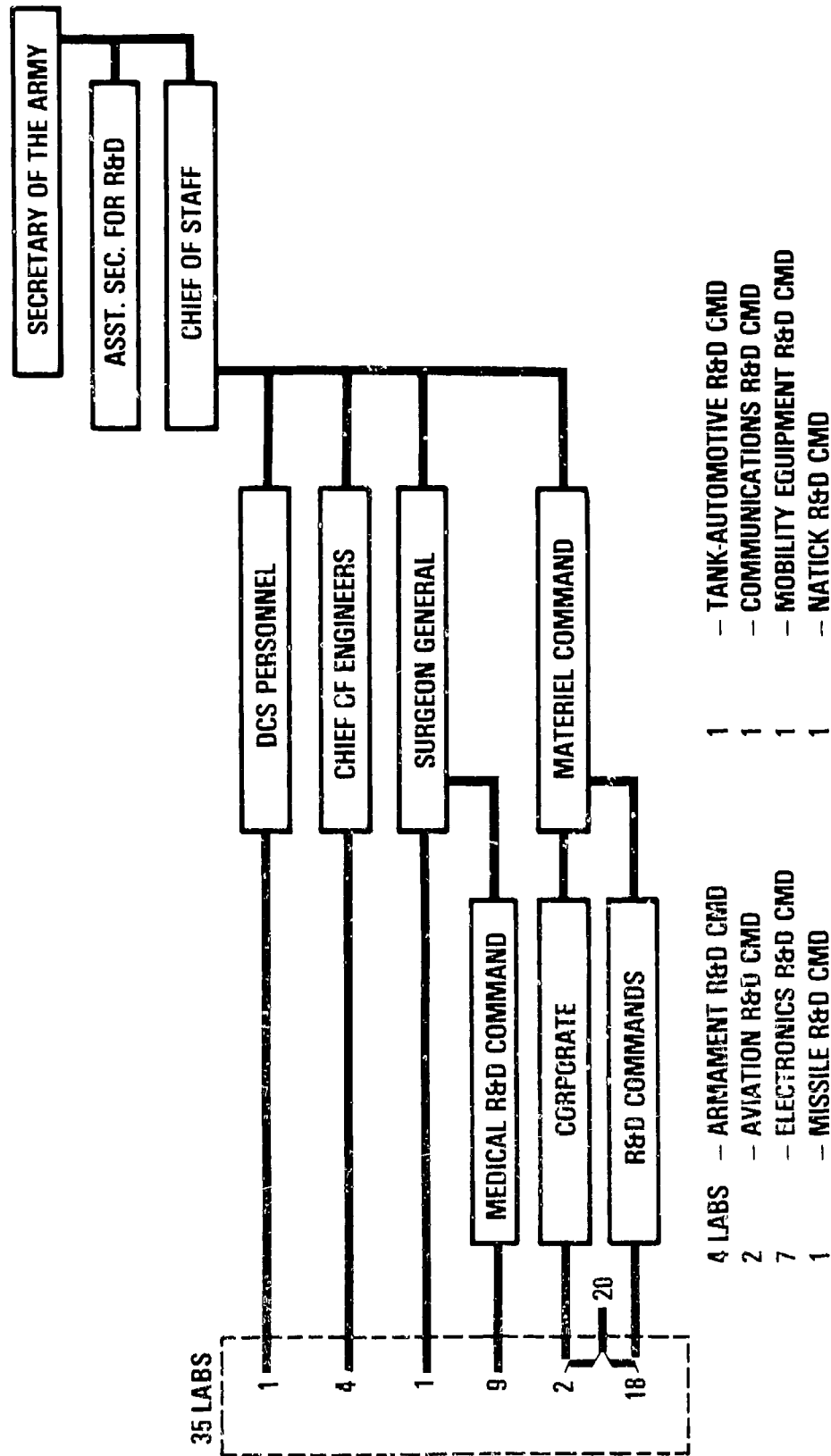
COMMAND CHAIN		
	INTERMEDIATE	COMMAND
AEROSPACE MEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND	CHIEF, BUR OF MED/SUR
AIR DEVELOPMENT CENTER	--	CHIEF OF NAVAL MATERIAL
ARCTIC RESEARCH LABORATORY	--	CHIEF OF NAVAL RESEARCH
BIOLOGICAL RESEARCH LABORATORY	--	CHIEF OF NAVAL RESEARCH
CIVIL ENGINEERING LABORATORY	FAC ENG COMMAND	CHIEF OF NAVAL MATERIAL
CLOTHING AND TEXTILE RESEARCH FACILITY	SUPPLY SYS COMMAND	CHIEF OF NAVAL MATERIAL
COASTAL SYSTEMS CENTER	--	CHIEF OF NAVAL MATERIAL
DAVID W. TAYLOR SHIP R&D CENTER	--	CHIEF OF NAVAL MATERIAL
DENTAL RESEARCH INSTITUTE, NTC	MEDICAL R&D COMMAND	CHIEF, BUR OF MED/SUR
ENVIRONMENTAL PREDICTION RESEARCH FACILITY	AIR SYSTEMS COMMAND	CHIEF OF NAVAL MATERIAL
HEALTH RESEARCH CENTER	MEDICAL R&D COMMAND	CHIEF, BUR OF MED/SUR
MEDICAL RESEARCH INSTITUTE	MEDICAL R&D COMMAND	CHIEF, BUR OF MED/SUR
MEDICAL RESEARCH UNIT NO. 2	MEDICAL R&D COMMAND	CHIEF, BUR OF MED/SUR
MEDICAL RESEARCH UNIT NO. 3	MEDICAL R&D COMMAND	CHIEF, BUR OF MED/SUR
OCEAN R&D ACTIVITY	--	CHIEF OF NAVAL RESEARCH
OCEAN SYSTEMS CENTER	--	CHIEF OF NAVAL MATERIAL
PERSONNEL RESEARCH & DEVELOPMENT CENTER	--	CHIEF OF NAVAL MATERIAL
RESEARCH LABORATORY	--	CHIEF OF NAVAL RESEARCH
SUBMARINE MEDICAL RESEARCH LABORATORY	MEDICAL R&D COMMAND	CHIEF, BUR OF MED/SUR
SURFACE WEAPONS CENTER	--	CHIEF OF NAVAL MATERIAL
UNDERSEAS RANGES DEPARTMENT	--	CHIEF OF NAVAL MATERIAL
UNDERWATER SYSTEMS CENTER	--	CHIEF OF NAVAL MATERIAL
WEAPONS CENTER	--	CHIEF OF NAVAL MATERIAL

TABLE 10 AIR FORCE RESEARCH AND DEVELOPMENT LABORATORY ORGANIZATIONAL RELATIONSHIPS

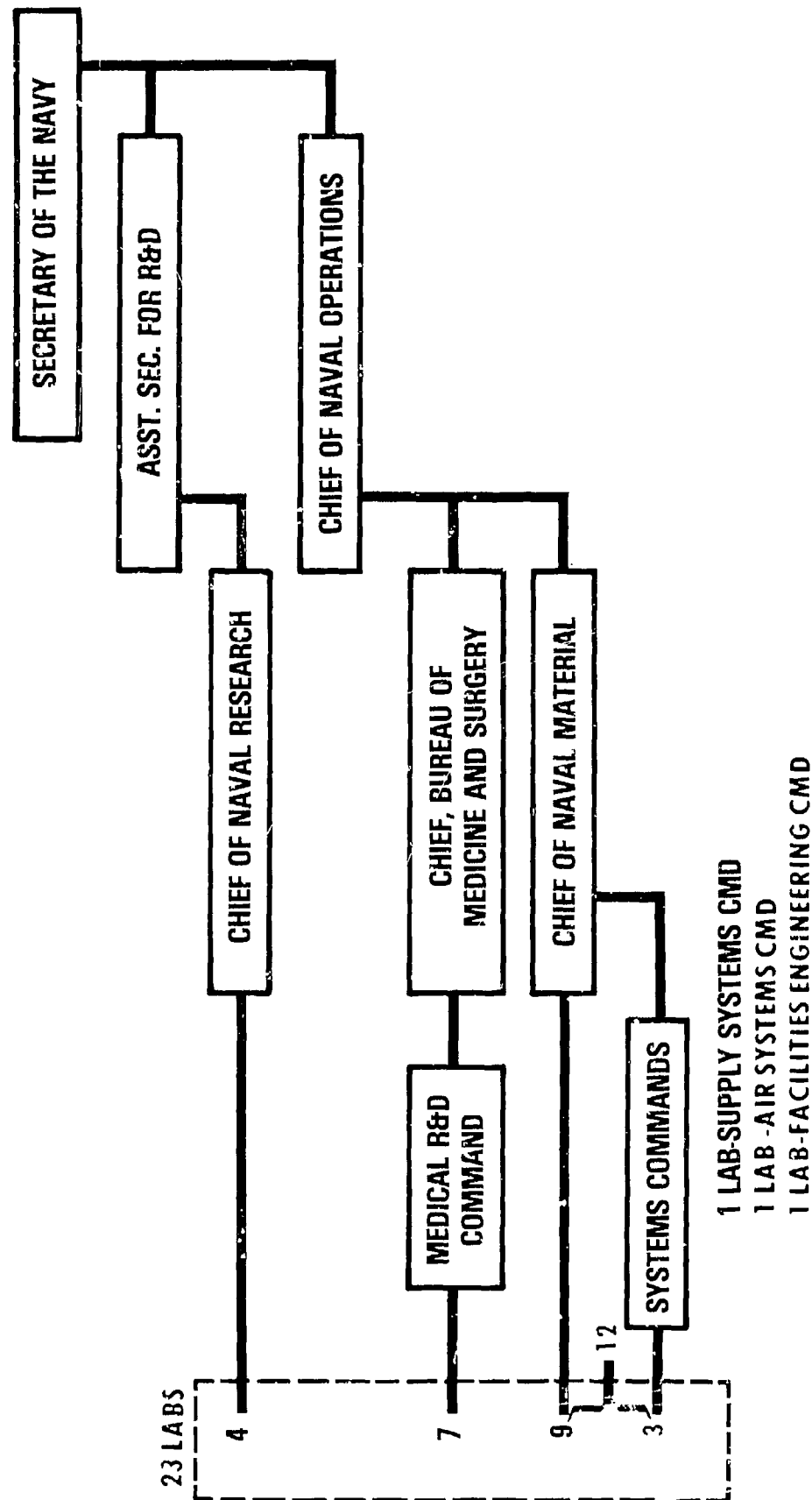
COMMAND CHAIN		
INTERMEDIATE		COMMAND
AEROPROPULSION LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
AEROSPACE MEDICAL RESEARCH LABORATORY	--	AF SYSTEMS COMMAND
*ARMAMENT LABORATORY	ARMAMENT DIVISION	AF SYSTEMS COMMAND
AVIONICS LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
ENGINEERING SERVICES CENTER/RD	--	HQ US AIR FORCE
FLIGHT DYNAMICS LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
FRANK J. SEILER RESEARCH LABORATORY	OFFICE OF SCIENTIFIC PES	AF SYSTEMS COMMAND
GEOPHYSICS LABORATORY	--	AF SYSTEMS COMMAND
HUMAN RESOURCES LABORATORY	--	AF SYSTEMS COMMAND
MATERIALS LABORATORY	WRIGHT AERONAUTICAL LABS	AF SYSTEMS COMMAND
ROCKET PROPULSION LABORATORY	--	AF SYSTEMS COMMAND
ROME AIR DEVELOPMENT CENTER	ELECTRONIC SYSTEMS DIVISION	AF SYSTEMS COMMAND
SCHOOL OF AEROSPACE MEDICINE	AEROSPACE MEDICAL DIVISION	AF SYSTEMS COMMAND
WEAPONS LABORATORY	--	AF SYSTEMS COMMAND

\* Laboratory portion not reported separately in this report. (See Armament Division which includes Armament Laboratory)

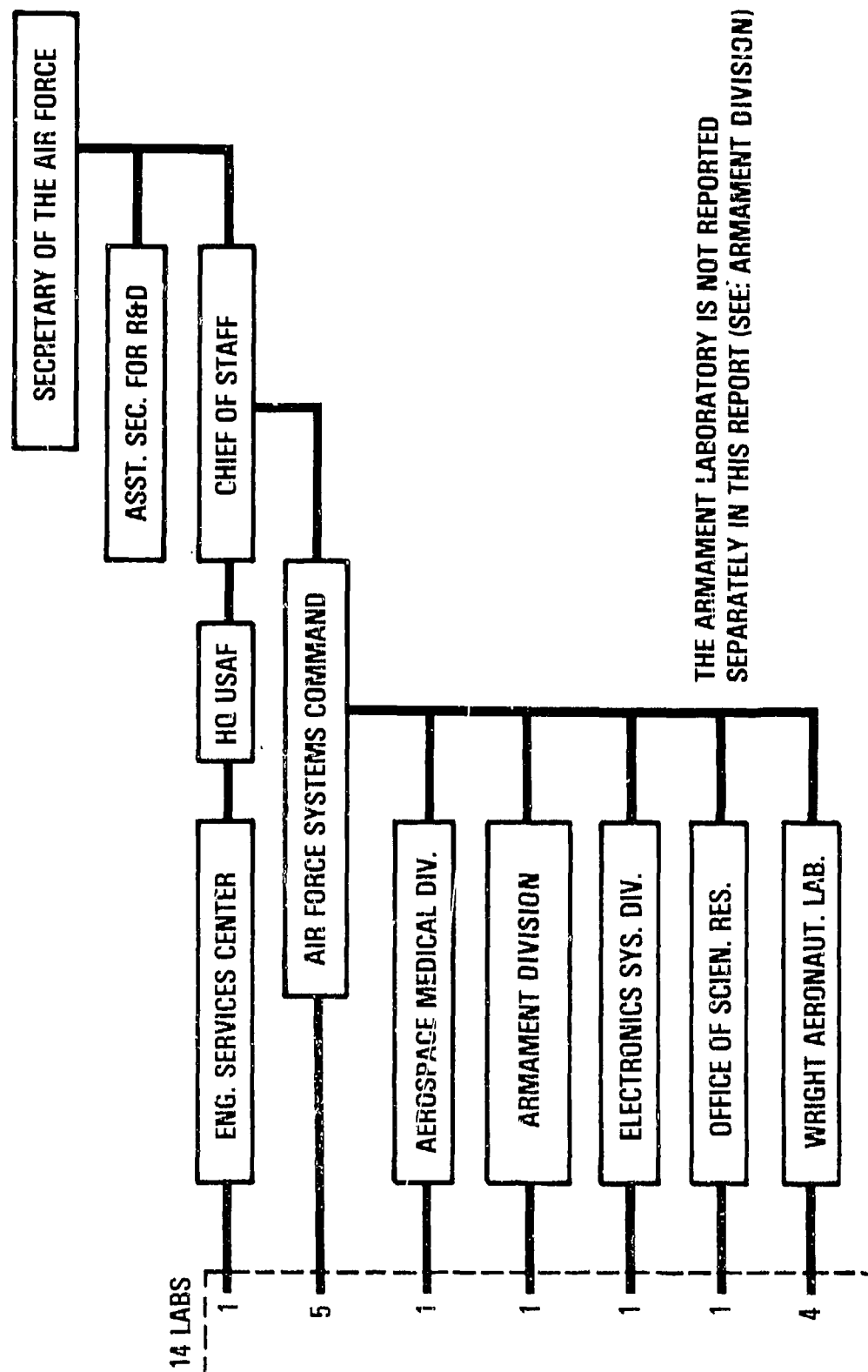
# ARMY LABORATORIES COMMAND CHAIN



# NAVY LABORATORIES COMMAND CHAIN



# AIR FORCE LABORATORIES COMMAND CHAIN



THE ARMAMENT LABORATORY IS NOT REPORTED  
SEPARATELY IN THIS REPORT (SEE: ARMAMENT DIVISION)

INSTALLATION: AEROMEDICAL RESEARCH LABORATORY

FT. RUCKER, AL.

COR. COL. STANLEY C. KNAPP

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	3.771	3.362
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.029	0.000
TOTAL OTHER	0.989	0.880
TOTAL ANNUAL LAB	4.789	4.242
TOTAL INHOUSE	4.177	3.825
TOTAL INHOUSE RDT&E	3.159	2.945
ANNUAL OPERATING COST	1.410	1.585

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	77	11	27	50
CIVILIAN	65	4	21	44
TOTAL	142	15	48	94

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
10	52.747	7.797	21.884	82.428	0.84	7.667	

#### ...MISSION

CUT FUND MTL/APPLD RSCH ON MED ASPECTS OF AAVN, ABNEGND OPNS  
PERF MED RSCH ON VIS/AUD FUNC; MAN/MACH INTEGRATION  
MED ASPECTS OF NUMMED MAT; PHYSIO/PSYCHU RSPNS TO UPNL ENVMTS  
MIL UPNL TNG IMPACTS UPON ECOLOGY. PRIME DND CONSULT IN ALL AREAS.

#### ...CURRENT IMPORTANT PROGRAMS

MEDICAL HAZARD ASSESSMENT OF MAJOR WEAPON SYSTEMS  
RSCH AND DEV OR MED FACTORS INFLUENCING VEH AND WEAPONS CREW PERFORMANCE  
RSCH OF VIS AND PSYCHOACOUSTICAL FACTORS OF MED IMPORT TO ARMY CBT SYS  
DIRECT APPLIED RSCH AND DEV TO SPT TO ARMY AVN  
FUNDAMENTAL BIOMED RSCH AND DEV TO ESTB EQUIP ENVMT AND TASK DESIG CRIT

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

ANECHOIC CHAMBER; COLORIMETER; ECG&EEG MACH; AUTOANALYZER; MASS SPECTRO; 3  
DEGREE FREEDOM CLOSED-LOOP SERVOHYDRAULIC HEL SEAT MNTD SIMULATOR; SEQ  
MULTI ANALYZER-COMPUTERIZED; SIMUHIMS (HEL SIMULATOR); HYBRID CPMT SYSCSEL-  
8500 DIGITAL MAINFRAME; SAI-681 ANALOG MAINFRAME; SAI-693 COMM INTERFACE;  
IMLAC PDS-10 DISPLAY PROCESSOR; FAST FOURIER SOUND ANALYZER; PHOTOMETRY  
LAB W/AUTOMATIC CIE ANAL RAPID SCAN SPECTROMETER TP CEABLE TO BU OF STDS  
DROP TOWER FOR ANSI EVAL OF HEL SYS; THREE AXES PEGUSUS MAN-RATED VIB  
PLATFORM W/HARDWARE CPMT CONT/ANAL SYS CAPABLE OF MOVING 600LB LOAD 0-50  
W/2US ERKOK; HEMISPHERE W/SENSORS TO DETM HEAD PNTING CAPABILITY FOR USE  
IN CONJ WITH/VIB PLATFORM FOR DYNAMIC STUDIES; EMERG PHYSICIAN CALL SYS  
(10 MILE RADIUS); ELECTRON MICROSCOPES (2EA); AUTOMATED TISSUE FIXATION  
SYS; ABN EQUIP; BIOCHEM LAB; ELECTRONICSENGR FAB SHOP; &PHOTO LAB.



INSTALLATION: AIR DEFENSE BOARD

EL PASO, TX.

PRES. COL. JAMES C. CRUSBY

TECH. ADV. MR. CHARLES E. FRENCH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + FST)
TOTAL RDT&E	3.495	4.056
TOTAL PROCUREMENT	1.662	1.921
TOTAL O&M	0.270	0.464
TOTAL OTHER	2.183	2.284
TOTAL ANNUAL LAB	7.610	8.725
TOTAL INHOUSE	7.118	7.686
TOTAL INHOUSE RDT&E	3.151	3.319
ANNUAL OPERATING COST	0.335	0.379

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	117	0	22		95
CIVILIAN	86	0	14		72
TOTAL	203	0	36		167

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
26	35.530	36.326	19.132	90.988	1.26	9.855	

#### ...MISSION

PLAN, CONDUCT AND REPT ON OT I, II, AND IIA AS RQR, AND OTHER USER-TYPE TESTS OF AD WPN SYS, FIRE DISTR SYS, ECM AND ECCM EQUIP AND DEVICES AND TGT DEVICES. MONITOR AND PARTICIPATE IN OT I AND OT II AND CONDUCT OTHER TESTS AND EVAL AS DIR BY CG, USA TRADOC AND CG, USAADOCENFB.

#### ...CURRENT IMPORTANT PROGRAMS

STINGER-POST CCMV  
LUMAD AFJ  
DIVAD GUN OT II  
PATRIOT OT II ADD-ON  
ROLAND RELIABILITY DEMO

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

EQUIPMENT: MULTIPLE TGT TRACKING SYS PROVIDES DATA FROM AIR GROUND TGT, TWO LASER TRACKING SYS TO BE OPER BY JAN 81 WILL PROVIDE DATA FROM COOPERATIVE TGT, INSTR RADAR SYS THAT PROVIDES HIGH ACCURACY, TWO NIKE-HERC FIRE CON SYS USED AS INSTR RADARS MATED TO RADAR DATA RECORDERS, A RNG TIMING SYS TO PROVIDE A TIME BASE FOR ALL INSTR SYS, TWO DATA ACQ SYS ACCEPT 59 DIFFERENT SIGNALS, CCTV SYS FOR RNG SAFETY, TECH PHOTO LAB FOR REQUIRED DATA, RICS PROVIDES NEAR REAL TIME DATA OUTPUTS. FACILITIES AT FT BLISS: BLDG 1656 HOUSES RICS, RNG TIMING SYS, DATA PREPARATION, ELECTRONIC CAL & FABRICATION LAB, MACH & CARPENTER SHOPS, MICROWAVE TERM THAT PROVIDES DATA & COMMU LINK TO RANGES; BLDG 1658 - PHOTOGRAPHIC LAB; DUNA ANA, MCGREGOR, NORTH MCGREGOR RANGES FOR FIRING FORWARD AREA WEAPON AT AIR OR GROUND TARGETS. SITE MONITOR FOR ELECTRONICS TESTING OF EQUIP.

INSTALLATION: AIRBORNE BOARD

FT. BRAGG, N.C.

PRES. COL. G.G. THOMAS, JR.

ENGR. ADV. MR. GEORGE G. GORE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	1.427	1.126
TOTAL PROCUREMENT	0.299	0.500
TOTAL U&M	0.126	0.184
TOTAL OTHER	1.138	1.000
TOTAL ANNUAL LAB	2.990	2.810
TOTAL INHOUSE	2.990	2.810
TOTAL INHOUSE RDT&E	1.427	1.126
ANNUAL OPERATING CUST	1.000	1.000

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHOS	TOTAL PROF	NON- PROF
MILITARY	87	0	17	70
CIVILIAN	40	0	4	36
TOTAL	127	0	21	106

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
27	3.978	3.914	39.390	47.282	0.97	4.026

...MISSION

THE MISSION OF THE ABN BD IS TO PLAN, CONDUCT AND REPORT ON DT I & II, FDT&E AND OTHER USER TYPE TESTS OF AIRBORNE ITEMS; PARTICIPATE IN DT I, II & III AS DIRECTED; PROVIDE ADVICE AND GUIDANCE ON TEST AND EVALUATION MATTERS. CONDUCT SPECIAL TESTS & EVALUATIONS AS DIRECTED.

...CURRENT IMPORTANT PROGRAMS

LOW ALTITUDE PARACHUTE EXTRACTION SYSTEM  
STANDARD AIRDROP OF SELECTED ITEMS OF EQUIPMENT  
EXTERNAL AIR TRANSPORTABILITY  
C-141B AIRCRAFT TEST PROGRAM  
FAMILY OF HELICOPTER EXTERNAL SLINGS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE: MAIN OFC BLDG, ABN HANGAR, INSTRUMENTATION/DESIGN INTERFACING SECTION, COMBINED SHOP & ADP FACILITY. MAJOR EQUIPMENT INCLUDES: LIGHTWEIGHT OPTICAL TRACKING SYSTEM, 25-TON CRANE, 2 20-TON MOBILE CRANES, 5-TON WRECKER, 40,000 LB ACFT LOADER, THREE T-28B ACFT, 1 UH-1H HELICOPTER, VARIOUS TYPES OF STANDARD PARACHUTES, NINE GASOLINE GENERATORS, DIGITAL THEODOLITES, ELECTRONIC DIAGNOSTIC EQUIPMENT, VOLT-METERS, AMMETERS, SPECTRUM ANALYZERS, SOUND & VIBRATION ANALYZERS, TIME MARK GENERATORS, OSCILLOSCOPES, MULTIMETERS, RANDOM NOISE GENERATORS, POWER SUPPLIES, G METERS, ATTENUATORS, GRAPHIC LEVEL RECORDERS, 16 MM CAMERAS, FILM ANALYZERS, PORTABLE VIDEO EQUIPMENT, VAN METER, ANALOG TAPE RECORDER, GRAPHIC LEVEL, FREQUENCY COUNTERS, SOUND LEVEL CALIBRATOR S, METER CALIBRATORS, MEGOHMMETER.

INSTALLATION: ARMOR AND ENGINEER BOARD

FT.KNOX,KY.

PRES.COL. JIMMY L. PIGG

CIV.SCI.ADV.MR. WARREN W. WELLS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	6.553	14.526
TOTAL REQUIREMENT	0.596	0.560
TOTAL U&M	0.288	0.600
TOTAL OTHER	3.311	3.399
TOTAL ANNUAL LAB	10.748	19.085
TOTAL INHOUSE	10.748	19.085
TOTAL INHOUSE RDT&E	6.553	14.526
ANNUAL OPERATING COST	0.564	0.590

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	227	0	107		120
CIVILIAN	102	2	18		84
TOTAL	329	2	125		204

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	UTHER	TOTAL	REAL PROP	EQUIP
2	63.365	50.454	88.069	201.888	1.45	2.410

#### ...MISSION

PLAN, CONDUCT & REPORT OT I, II, III, FOTE, CEP, TEA & OTHER USER TESTS OF AR/ ENGR EQ. PARTICIPATE IN OTI, II, III & SP STUDY OF CML EQ. PROVIDE GUIDANCE & ADVICE TO DEVELOPERS, PRODUCERS, OTHER SVCS & PRIVATE INDUSTRY. PLAN, CO-ORDINATE, MANAGE & REPORT ON ACVTP. PROVIDE ADM, LOGIS & OPNS SPT TO DCD.

#### ...CURRENT IMPORTANT PROGRAMS

COMBAT VEHICLE TECHNOLOGY PROGRAM  
SURFACE LAUNCHED FUEL AIR EXPLOSIVE  
GROUND EMPLACED MINE SCATTERING SYSTEM  
XM-1 TANK EXTENDED FSED DURABILITY/RELIABILITY TEST  
MODULAR PACK MINE SYSTEM (MOPMS)

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

REMOTE CONTROLLED, VARIABLE SPEED, RELOCATABLE MOVING TARGET(MT); REMOTE CONTROLLED, HIT INDICATING, RELOCATABLE STATIONARY TARGET(ST); TARGET SPOTTING SYSTEM (TSS); GUN CAMERA, SINGLE FRAME - 35MM CINE - 16 MM(GC); VIDEO AUTOMATIC TARGET TRACKING SYSTEM(VATTS); SIMFIRE HIT-KILL INDICATR; POSITION LOCATION SYSTEM (MMKIII); MULTIMODE EVASIVE TARGET SYSTEM; TANK VIDEO SYSTEM; RANGE TIMING EQUIPMENT; TELEMETRY EQUIPMENT; 16MM MOTION PICTURE CAMERA WITH DATADUORS; THRU-TANK-OPTICS VIDEO DEVICE; GUN ELEVATION LIMITING DEVICE; SLR CAMERA; AUTOMATIC FILM ANALYZER & DIGITZR SYSTEM; DATA ANALYSIS AND RECORDING SUBSYSTEM.

INSTALLATION: ARMY RESEARCH OFFICE

DURHAM, N.C.

CUR.COL. ANTHONY P. SIMKUS

TECH.DIR.DR.HERMAN KOBL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	38.692	44.814
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.082	0.082
TOTAL ANNUAL LAB	38.774	44.896
TOTAL INHOUSE	0.082	0.082
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	3.208	4.384

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	2	0	2		0
CIVILIAN	94	2	34		60
TOTAL	96	33	36		60

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	0.000	23.440	0.000	23.440	0.00	0.350	

#### ...MISSION

TO MANAGE THAT PORTION OF THE ARMY'S RSCH PROG RELEVANT TO ARMY MSNS IN MATH AND THE PHYS, ENGR, ENVIRONMENTAL AND LIFE SCIS ACCOMP THROUGH CONTR AND GRANTS WITH EDUC INSTITS, RSCH INSTITS AND GOVT AND INDUS LAB AND TO REPRESENT THE RESEARCH INTERESTS OF THE ARMY OVERSEAS

#### ...CURRENT IMPORTANT PROGRAMS

DEVELOPE AND MANAGE THE ARMY BASIC RESEARCH PROGRAMS  
COLLECT, ANALYZE AND EVALUATE BASIC RESEARCH RESULTS  
ESTABLISH AND MAINTAIN LIAISON WITH ARMY DEVELOPMENT AGENCIES

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

ADMINISTRATION OF RESEARCH PROGRAMS IN PHYSICAL SCIENCES  
MATHEMATICAL, MATERIAL, ELECTRONICS, MECHANICS AND AERONAUTICS.  
ADMINISTRATION OF THE RESEARCH PORTION OF ARMY RESEARCH AND STANDARDIZATION OFFICE, LONDON. COORDINATES ARMY RESEARCH EFFORTS WITHIN THE ARMY AND WITH OTHER GOVERNMENT AGENCIES SUCH AS NAVY, NASA, DOD, DOE, NSF AND OTHERS.

INSTALLATION: ATMOSPHERIC SCIENCES LABORATORY

WHITE SANDS MR,N.M.

CDR.COL. WILLIAM E. RAWLINSUN DEP.DIR. DR. HENRY RACHELE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT < EST)
TOTAL ROT&E	19.632	22.587
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.032	0.008
TOTAL OTHER	12.242	13.099
TOTAL ANNUAL LAB	31.906	35.694
TOTAL INHOUSE	23.676	24.971
TOTAL INHOUSE ROT&E	11.402	11.864
ANNUAL OPERATING COST	0.804	1.020

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHUS	TOTAL PROF	
MILITARY	358	0	28	330
CIVILIAN	175	22	94	81
TOTAL	533	22	122	411

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)					
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
45	52.541	26.663	11.409	90.613	7.37	19.377

#### ...MISSION

RESPONSIBLE FOR THAT PORTION OF BRADCOM MISSION DEVOTED TO RESEARCH IN ATMOSPHERIC SCIENCES, DEVELOPMENT OF METEOROLOGICAL TECHNIQUES AND EQUIPMENT FOR FIELD ARMY. FURNISH METEOROLOGICAL SERVICES TO ARMY ROT&E ACTIVITIES.

#### ...CURRENT IMPORTANT PROGRAMS

AUTOMATIC ATMOSPHERIC SOUNDING SET AN/TMO-31  
ATMOSPHERIC CHARACTERIZATION  
REMOTE ATMOSPHERIC SENSING AND PROBING  
ATMOSPHERIC MODELS FOR E-O SYSTEMS  
METEOROLOGICAL SUPPORT TO ROT&E ACTIVITIES

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

METEOROLOGICAL RESEARCH FACILITY AND CAPABILITY  
MOBILE ATMOSPHERIC CHARACTERIZATION EQUIPMENT  
ATMOSPHERIC PHYSICS RESEARCH FACILITY AND CAPABILITY  
UPPER ATMOSPHERE RESEARCH AND SOUNDING ROCKET FACILITY AND CAPABILITY  
ION MASS SPECTROMETER SYSTEM  
REMOTE ATMOSPHERIC SENSING FIELD RESEARCH FACILITY  
ATMOSPHERIC SPECTROSCOPY - LASER PROPAGATION FACILITY  
METEOROLOGICAL ROT&E SUPPORT FACILITIES - ALASKA TO CANAL ZONE  
METEOROLOGICAL INSTRUMENTATION TEST, MAINTENANCE, CALIBRATION FACILITY  
FACILITY FOR SONIC OBSERVATION OF TRAJECTORY AND IMPACT OF MISSILES  
HIGH ENERGY LASER TEST FACILITY

INSTALLATION: AVIATION BOARD

FT. RUCKER, AL.

PRE. COL. ROBERT A. BONIFACIO TECH. ADV. GEORGE E. SLAGLEY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	2.446	2.155
TOTAL PROCUREMENT	0.156	0.003
TOTAL OEM	0.698	0.081
TOTAL OTHER	1.482	1.579
TOTAL ANNUAL LAB	4.782	3.818
TOTAL INHOUSE	4.782	3.818
TOTAL INHOUSE RDT&E	2.446	2.155
ANNUAL OPERATING COST	1.286	1.333

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	79	0	33		46
CIVILIAN	36	2	8		28
TOTAL	115	2	41		74

ACRES	SPACE AND PROPERTY (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
0	0.000	18.514	12.961	31.475	0.00	0.433	

...MISSION

MISSION: THE CONDUCT OF OPERATIONAL TEST I, II, III, FOR NON-MAJOR SYS AND OTHER TESTS AS DIRECTED BY HQ TRADOC. SPECIFICALLY, THE AVIATION BD DESIGNS AND CONDUCTS TESTING AND EVALUATION OF AVIATION SYSTEMS, SUBSYSTEMS AND ANCILLIARY EQUIPMENT.

...CURRENT IMPORTANT PROGRAMS

DT263AAN/APR-39(V2)DT2  
FDD92BLACK HAWK IOC  
INTEGRATED AVIONICS CONTROL SYSTEM (IACS)  
AN/PV-5 NVG AIRCRAFT POWER CONVERTER  
QUADRANT LASER WARNING RECEIVER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NO MAJ EQP OR FAC.

INSTALLATION: AVIATION DEVELOPMENT TEST ACTIVITY

FT. RUCKER, AL.

CDR. COL. WILLIAM E. CROUCH, JR. TECH. DIR. DR. JAMES S. KISHI

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	7.128	8.395
TOTAL PROCUREMENT	0.125	0.324
TOTAL O&M	1.638	1.819
TOTAL OTHER	1.957	2.093
TOTAL ANNUAL LAB	10.848	12.631
TOTAL INHOUSE	10.848	12.631
TOTAL INHOUSE RDT&E	7.128	8.395
ANNUAL OPERATING COST	5.104	5.458

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	PROF	
MILITARY	231	0	33	198	
CIVILIAN	93	1	14	79	
TOTAL	324	1	47	277	

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	UTHER	TOTAL	REAL PROP
1196	0.000	39.124	118.026	157.150	1.78	28.753

#### ...MISSION

TO PLAN, CONDUCT, EVALUATE, AND REPORT ON THE GOVT. TEST ELEMENTS- RDT-G, ADVT-G, PQT-G, PVT-G, AND TO MONITOR, EVALUATE AND REPORT ON CONTRACTOR TESTS UNDER SIDTC CONCEPT FOR AIRCRAFT, AIRCRAFT COMPONENTS AND RELATED EQUIPMENT. CONDUCT OTHER TESTS AND EVALUATIONS AS DIRECTED BY TECOM.

#### ...CURRENT IMPORTANT PROGRAMS

AAH DEVELOPMENT TEST PROGRAM.

UH-60A BLACK HAWK DEVELOPMENT TEST PROGRAM.

YCH-47D DEVELOPMENT TEST II PROGRAM.

UH-58C VERIFICATION TEST PROGRAM.

ALJ-156 MISSILE APPROACH DETECTOR DEVELOPMENT TEST II PROGRAM.

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

PLAN, CONDUCT, RECORD, EVALUATE, AND REPORT RESULTS OF ASSIGNED DEVELOPMENT TESTS AND EVALUATIONS. PARTICIPATE IN AND SUPPORT THE DEVELOPMENT EFFORTS OF THE VARIOUS COMMODITY COMMANDS WITH RESPONSIBILITY FOR THE DEVELOPMENT OF AVIATION AND AVIATION RELATED MATERIEL. MONITOR CONTRACTOR TEST PROGRAMS, DEMONSTRATIONS, IN WHOLE OR IN PART. PERFORM SOLDIER TESTING TO EVALUATE HFE, SAFETY, AND THE MAN-MACHINE INTERFACE. PROVIDE TECOM TEST REQUIREMENTS FOR THE COORDINATED TEST PROGRAMS. PROVIDE DATA CONCERNING OPERATIONS UNDER EXTREME ENVIRONMENTAL CONDITIONS. CONDUCT PRODUCT IMPROVEMENT TESTS OF FIELDED AVIATION MATERIEL TO IMPROVE SYSTEM CAPABILITY AND RAM. REVIEW AND COMMENT ON NEW EQUIPMENT TRAINING PACKAGES. PROVIDE AIRCRAFT AND SUPPORT AS REQUESTED BY OTHER COMMANDS IN THE MATERIEL DEVELOPMENT EFFORT.

INSTALLATION: AVIATION ENGINEERING FLIGHT ACTIVITY

EDWARDS AFB, CA.

CDR. COL. LEWIS J. MCCONNELL

TECH. DIR. JAMES S. HAYDEN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	6.317	4.600
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.974	1.042
TOTAL ANNUAL LAB	7.291	5.642
TOTAL INHOUSE	5.658	5.509
TOTAL INHOUSE RDT&E	4.684	4.467
ANNUAL OPERATING COST	0.210	0.230

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	66	0	15	51
CIVILIAN	100	0	26	74
TOTAL	166	0	41	125

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
19	9.200	16.000	124.800	150.000	3.63	6.839

#### ...MISSION

PRODUCE ENGR FLT TEST DATA ON ACFT PERFE, HANDLING QUALITIES VIBRATION  
SYS/SUBSYSTEM INTERFACE FOR USE IN ACFT DEVELOPMENT AND QUALIFICATION.  
SUSTAIN THE CAPABILITY TO COMPLETELY INSTRUMENT TEST ACFT WITH ONBOARD  
RECORDING/TELEMETRY REAL TIME DATA REDUCTION. CONDUCT PRE-TPS ORIENT.

#### ...CURRENT IMPORTANT PROGRAMS

UH-60A A&FC  
AH-1S TADS/PNVS  
CH-47D PAF & A&FC  
ICING: UH-60A, CH-47D, SIMULATOR DEVELOPMENT  
AAH EDT111&1V

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

1JT-28B, 1T-28B, 2OV-1C, 1JU-21A, 1JAH-1S, 2JCH-47C, 1JUH-58C, 1JUH-60A, 5JUH-1H  
ACFT MAINT CAPABILITY  
ACFT MODIFICATION CAPABILITY  
ACFT INSTRUMENTATION CAPABILITY  
BAIKBORNE DATA ACQUISITION-SYSTEMS  
IEMR COMPUTER WITH TELEMETRY  
3REMOTE GROUND STATIONS WITH COMPUTER AND TELEMETRY CAPABILITY  
1MILIKEN CAMERA  
1FAIRCHILD FLT ANALYSER  
1MAG TAPE COMPOSER 3MAG TAPE TYPEWRITERS 2MAG TYPEWRITERS 3MAG COMPOSERS



INSTALLATION: AVIATION RESEARCH & TECHNOLOGY LABORATORIES MOFFETT FIELD, CA.

DIR. DR. RICHARD M. CARLSON

DEP. DIR. COL. JOHN B. FITCH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	44.841	49.770
TOTAL PROCUREMENT	2.830	4.201
TOTAL OEM	0.409	0.000
TOTAL OTHER	0.439	0.316
TOTAL ANNUAL LAB	48.519	54.287
TOTAL INHOUSE	19.018	25.819
TOTAL INHOUSE RDT&E	17.550	24.845
ANNUAL OPERATING COST	4.460	4.934

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	24	0	11		13
CIVILIAN	536	35	271		265
TOTAL	560	35	282		278

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
127	88.848	58.673	16.370	163.891	1.43	17.808	

...MISSION

MANAGES AND EXECUTES R&D OF ARMY AIRMOBILE SYSTEMS THROUGH DEMONSTRATION OF TECHNOLOGY. PROVIDES TECHNICAL SUPPORT TO PROJECT/PRODUCT MANAGERS & SYSTEM DEVELOPERS AS REQUIRED. PROVIDES INDEPENDENT TECHNICAL RISK ASSESSMENT TO CG USAAVRADCUM AND HIGHER AUTHORITY.

...CURRENT IMPORTANT PROGRAMS

RESEARCH IN FUNDAMENTAL ROTOR AERODYNAMICS, DYNAMICS & NOISE.  
RESEARCH & DEVELOPMENT OF SMALL GAS TURBINES.  
R&D TO IMPROVE RELIABILITY & MAINTAINABILITY OF AIRMOBILE SYSTEMS.  
RSCH, COMPOSITES & MEASURE OPNL. FLT. LOADS TO IMPROVE STRUCTURES FOR A/C  
EVOLVE TECHNOLOGY & CRITERIA TO IMPROVE FLIGHT SAFETY & SURVIVABILITY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THREE LABORATORIES AT MOFFETT FIELD CA, CLEVELAND OH, HAMPTON VA, COLOCATED WITH NASA, PARTICIPATING IN RESEARCH OF AIRMOBILE SYSTEMS & DISCIPLINES, JOINTLY USING WIND TUNNELS, SIMULATORS & LABORATORY TEST FACILITIES, INCLUDING SHOPS, FLIGHT LINE & HANGAR, STRUCTURE LAB, ENGINE TEST FACILITIES & COMPUTATIONAL EQUIPMENT. FOURTH LABORATORY AT FORT EUSTIS VA., PERFORMING ADVANCED APPLICATIONS WORK. MAJOR EQUIPMENT & FACILITIES: FILAMENT WINGING MACHINES, TENSILE TESTERS, VIBRATION TESTER, SMALL BALLISTIC RANGE, CALIBRATION LAB, ENVIRONMENT CHAMBER, ATOMIC ABSORPTION SPECTR, TELEMETER GROUND STATION, NON-DESTRUCT TESTING FACILITY, FLIGHT SAFETY LAB.

INSTALLATION: AVIONICS R & D ACTIVITY

FT. MONMOUTH, N.J.

CDR. COL. D. PETERSON

DEP. DIR. MR. T. SUETA

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	10.401	11.068
TOTAL PROCUREMENT	3.914	5.091
TOTAL U&M	0.820	1.056
TOTAL OTHER	0.197	0.265
TOTAL ANNUAL LAB	15.332	17.480
TOTAL INHOUSE	9.125	10.035
TOTAL INHOUSE RDT&E	5.504	5.889
ANNUAL OPERATING COST	2.879	3.081

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	12	0	8		4
CIVILIAN	211	5	133		78
TOTAL	223	5	141		82

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	16.000	33.500	0.000	49.500	0.00	7.098

#### ...MISSION

RESPONSIBLE FOR THAT PORTION OF AVRADCOM'S MISSION WHICH PERTAINS TO AVIATION ELECTRONICS FROM RESEARCH THRU FIRST TIME PRODUCTION. THIS ENCOMPASSES BOTH AIRBORNE AND GROUND EQUIPMENT FOR COMMUNICATIONS, NAVIGATION INSTRUMENTATION, ENVIRONMENT SENSING, LANDING AND AIR TRAFFIC

#### ...CURRENT IMPORTANT PROGRAMS

ARMY DIGITAL AVIONICS SYSTEMS  
INTEGRATED AVIONICS CONTROL SYSTEM, IACS  
AVIATION MAP-OF-THE-EARTH COMMUNICATIONS  
WIRE AND WIRE LIKE OBJECT DETECTION SYSTEM  
VERY LIGHT WEIGHT AIR TRAFFIC MANAGEMENT EQUIPMENT

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT INCLUDES NIGHT NAVIGATION PILOTAGE SYSTEM, DIGITAL HUT BEGMA SYMBOLLOGY GENERATOR, WIRE DETECTION AND RECOGNITION SIMULATOR, DIGITALLY ADDRESSABLE, MULTI-LEGEND DISPLAY SWITCH, MICROPROCESSOR SYSTEM SIMULATOR, ENVIRONMENTAL VEHICLE FOR AVIONICS RESEARCH, SKC-2000 DATA ACQUISITION SYSTEM, ANTENNA RANGE, ELECTROMAGNETIC INTERFERENCE TEST FACILITY CAD-E FACILITY, MICROPROCESSOR DEVELOPMENT CENTER, DATA FORMATTING FACILITY AND AIR TRAFFIC MANAGEMENT SYSTEMS DESIGN CENTER. MATTING FACILITY AND AIR TRAFFIC MANAGEMENT SYSTEM DESIGN

INSTALLATION: BALLISTIC RESEARCH LABORATORY

ABERDEEN PROV.GR.,MD.

DIR.DR.ROBERT J. EICHELBERGER DEP.DIR.COL.ROBERT M. GOMEZ

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	45.854	36.598
TOTAL PROCUREMENT	0.298	0.000
TOTAL U&M	0.397	0.124
TOTAL UTHER	2.095	2.155
TOTAL ANNUAL LAB	48.644	38.877
TOTAL INHOUSE	36.970	31.455
TOTAL INHOUSE RDT&E	34.748	29.176
ANNUAL OPERATING COST	11.084	11.749

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	26	2	10	16	
CIVILIAN	755	100	390	365	
TOTAL	781	102	400	381	

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	UTHER			
1920	539.702	11.200	40.982	591.884	14.59	33.742

#### ...MISSION

CONDUCT RESEARCH AND EXPL DEV IN SCIENCES/TECHNOLOGIES NECESSARY FOR  
CONCEIVING,DESIGNING,DEVELOPING AND EVALUATING WEAPON SYSTEMS  
PURSUE ORIENTED FUND RESEARCH IN PHYS,CHEM,MATH & ENGINEERING SUBJECTS  
INVESTIGATE PERTINENT BRANCHES OF MILITARY SCIENCES AND TECHNOLOGIES

#### ...CURRENT IMPORTANT PROGRAMS

PROPULSION DYNAMICS OF HYPERVELOCITY AND CONVENTIONAL GUNS  
EFFECTS OF CONVENTIONAL/NUCLEAR WARHEADS AND BALLISTIC PROTECTION  
WARHEAD DYNAMICS,PENETRATION,FRAGMENTATION,EXPLOSIVE/METAL INTERACTIONS  
FLIGHT DYNAMICS OF PROJECTILES AND MISSILES;ARTILLERY FIRING TABLES  
VULNERABILITY ANALYSIS/VULNERABILITY REDUCTION ARMY MATERIEL.

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

SHOCK TUBES TO SIMULATE NUCLEAR BLAST&MEASURE CHEMICAL REACTION RATES  
SOFT RECOVERY SYSTEM FOR ARTILLERY SHELLS,HIGH SPEED MOTIUN PHOTOGRAPHY  
SPARK PHOTOGRAPHY RANGES, X-RAY CINEPHOTOGRAPHY,FLASH HOLOGRAPHIC SYST  
FIELD TEST FACILITIES FOR PROJEC FILE,EXPLOSIVE,AND ARMOR RESEARCH TESTS  
CENTRAL SITE COMPUTATIONAL FACILITY WITH 60 REMOTE INTERACTIVE TERM AND  
PULSED FLOW CHEMICAL REACTOR SYSTEM

INSTALLATION: BIOMEDICAL LABORATORY \*

ABERDEEN PROV. GR., MD

CDR. COL. CRAIG H. LLEWELLYN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	0.000	6.246
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.000	0.000
TOTAL OTHER	0.000	1.371
TOTAL ANNUAL LAB	0.000	7.617
TOTAL INHOUSE	0.000	5.4
TOTAL INHOUSE RDT&E	0.000	4.0 0
ANNUAL OPERATING COST	0.000	2.791

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	66	25	41	25
CIVILIAN	121	10	54	67
TOTAL	187	35	95	92

ACRES	SPACE AND PROPERTY *				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP	
	LAB	ADMIN	OTHER				
0	0.000	0.000	0.000	0.000	0.00	0.000	

#### ...MISSION

CONDUCTS RDT&E IN SUPPORT OF THE ARMY MEDICAL DEPARTMENT PROGRAM FOR MEDICAL DEFENSE AGAINST CHEMICAL AGENTS AND IS THE PRINCIPAL ELEMENT FOR THE DEVELOPMENT AND EVALUATION OF THE SAFETY AND EFFICACY OF MODES FOR PROPHYLAXIS AND TREATMENT OF CHEMICAL INJURY IN MAN

#### ...CURRENT IMPORTANT PROGRAMS

PROPHYLAXIS AND THERAPY FOR CHEMICAL CASUALTIES  
 DECREMENT OF PERFORMANCE  
 NON-BEHAVIORAL EFFECTS OF P AND T COMPOUNDS FOR CHEMICAL CASUALTIES  
 SKIN DECONTAMINATION AND PROTECTION  
 MECH OF THE SPONTANEOUS REACTIVATION OF GB-INHIBITED ACETYLCHOLINESTERAS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

FULLY STAFFED CLINICAL RESOURCE FACILITY LARGE ANIMAL RESOURCE FACILITY  
 LIQUID GAS COLUMN AND AFFINITY CHROMATOGRAPHY ELECTROPHORESIS  
 SPECTROPHOTOMETRY AND FLUOROMETRY RADIOISOTOPE ANALYSIS SCAT BEHAVIORAL  
 CONTROL SYSTEM BEHAVIORAL TESTING LABORATORY NEUROPHYSIOLOGICAL  
 PHARMACOLOGICAL INVESTIGATIONS COMPLETE VIDEO PRODUCTION FACILITY

\*

SPLIT OFF FROM CHEMICAL SYSTEMS LABORATORY (CSL)  
 SPACE AND PROPERTY DATA INCLUDED UNDER CSL FOR FY79 ONLY  
 FISCAL DATA FOR FY80 NOT INCLUDED IN CSL, SHOWN ABOVE

INSTALLATION: CHEMICAL SYSTEMS LABORATORY

ABERDEEN PROV. GR., MD

DIR. COL. JOHN D. SPENCE

DEP. DIR. DR. BENJ L. HARRIS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	58.966	61.962
TOTAL PROCUREMENT	11.701	22.508
TOTAL O&M	1.600	2.000
TOTAL OTHER	2.694	1.359
TOTAL ANNUAL LAB	74.961	87.829
TOTAL INHOUSE	48.354	45.338
TOTAL INHOUSE RDT&E	37.320	34.605
ANNUAL OPERATING COST	6.874	6.588

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NUM- PROF
MILITARY	150	25	78	72
CIVILIAN	757	46	451	306
TOTAL	907	71	529	378

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
2000	579.564	84.169	405.670	1069.403	22.03	26.692

...MISSION

CLASS II ACTIVITY CONDUCTING A RESEARCH & DEVELOPMENT MISSION FOR ARMY CHEMICAL MUNITIONS & DEFENSIVE ITEMS. INCLUDES BASIC RESEARCH AND GENERAL INVESTIGATIONS AS WELL AS EXPLORATORY, ADVANCED AND ENGINEERING DEVELOPMENT OF MATERIAL.

...CURRENT IMPORTANT PROGRAMS

NEW PROTECTIVE MASK DEVELOPMENT  
BINARY LETHAL CHEMICAL AGENT PROJECTILE DEVELOPMENT  
SMOKE OBSCURANTS AND SMOKE TOXICOLOGY  
MEDICAL DIAGNOSIS PROPHYLAXIS AND TREATMENT OF CHEMICAL AGENTS  
CHEMICAL DECONTAMINATION AND CONTAMINATION AVOIDANCE

...FUNCTIONS/EQUIPMENT/CAPABILITIES

BASIC RESEARCH; SMOKE/OBSCURANTS; SMOKE TOX; DECON & CONTAMINATION AVOIDANCE; ALARM TECH; TRAINING AGTS; CML PROTECTION; PHY DEF AGAINST BIO ATTACK; DETECT & IDENT; CB THREAT ASSESS; OPER SCIENCE/TECH; TOX EFFECTS OF THREAT AGTS; LETHAL AGTS; MED EFFECTS CML AGTS; ENVIRONMENTAL QUALITY; CIVIL DIST; INCAP CML AGTS; BIO RESPONSE TO TRAUMA; ASSESS FOREIGN BIOLOGICALS  
MAJOR EQUIP IS CONTAINED IN A COMPLEX OF ENGINEERING/LABORATORY AREAS. INCLUDES CML PILOT PLANT FAC; AEROSOL CHAMBER; MUNITION FILLING FAC; PLANT DESIGN; ANECHOIC CHAMBER; SIMULANT AGT CHALLENGE TEST CHAMBER; RUBBER/ELASTOMER MOLD FAC; SPEC CML AGT LABS; PYROTECHNIC MIXING LOADING HANDLING FAC; INDOOR BALLISTIC RANGE; SUBSONIC--SUPERSONIC, TRANSONIC WIND TUNNEL. A COMPLETE CLINICAL RES FAC, ANIMAL BREEDING--HOLDING FACILITY.

INSTALLATION: COLD REGIONS R&E LABORATORY

HANDOVER, N.H.

COR.COL.A.B. DEVEREAUX, JR.

TECH.DIR.DR. D.P. FREITAS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	5.064	5.956
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.281	0.155
TOTAL OTHER	6.812	7.346
TOTAL ANNUAL LAB	12.157	13.457
TOTAL INHOUSE	9.527	10.467
TOTAL INHOUSE RDT&E	3.454	4.062
ANNUAL OPERATING COST	2.540	2.870

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	14	1	4	10
CIVILIAN	263	32	109	154
TOTAL	277	33	113	164

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
24	80.786	30.027	128.544	239.357	7.89	6.959

...MISSION

AS THE ARMY LABORATORY FOR SCIENCE AND TECHNOLOGY IN COLD REGIONS, THE US ARMY COLD REGIONS RESEARCH AND ENGINEERING LABORATORY CONDUCTS AND COORDINATES RESEARCH APPLICABLE TO THE ARMY'S NEEDS WHERE WINTER WEATHER AND COLD REPRESENTS A SEVERE PROBLEM.

...CURRENT IMPORTANT PROGRAMS

FACILITIES CONST, OPERATION, & REPAIR UNDER TEMP & ARCTIC COLD  
CONDITIONS WINTER COMBAT OPERATIONS TECHNOLOGY  
IMPACT OF WINTER ENVIRONMENT ON NEW WEAPON SYSTEMS AND OTHER MATERIEL  
CONTROL OF ICE ON STRUCTURES, EQUIPMENT AND IN NAVIGATION  
LAND TREATMENT OF WASTEWATER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE MAIN LABORATORY AT USACKREL CONTAINS 24 COLD LABS WHICH CAN BE OPERATED TO -58 F, SPECIAL TESTING APPARATUS FOR FROZEN MATERIALS, AN ICE ENGINEERING FACILITY FOR LARGE MODELING EXPERIMENTS WITH ICE, A CHEMISTRY LAB, AN ELECTRON MICROSCOPE LAB, A SOILS PROCESSING LAB, A PAVEMENT TEST FACILITY FOR TESTING UNDER FREEZING/THAWING CONDITIONS, A WASTEWATER TREATMENT RESEARCH FACILITY, A COMPUTER FACILITY, A MASS SPECTROMETER, A GAS CHROMATOGRAPH, AND A SMALL LASER FACILITY. THE ALASKA PROJECTS OFFICE AT FAIRBANKS CONDUCTS RESEARCH AND PROVIDES LOGISTIC SUPPORT FOR OTHER RESEARCH. USACKREL'S MILITARY AND CIVILIAN PERSONNEL HAVE EXPERTISE COVERING A WIDE RANGE OF SCIENTIFIC AND ENGINEERING DISCIPLINES RELATED TO COLD REGIONS RESEARCH.

INSTALLATION: COLD REGIONS TEST CENTER

APO SEATTLE, WA.

COR. COL. JAMES F. HENRIUNNET TECH. ADV. MR. WILLIAM J. HASLEM

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	4.045	5.103
TOTAL PROCUREMENT	0.033	0.010
TOTAL O&M	0.017	0.000
TOTAL OTHER	4.195	4.393
TOTAL ANNUAL LAB	8.290	9.506
TOTAL INHOUSE	8.290	9.506
TOTAL INHOUSE RDT&E	4.045	5.103
ANNUAL OPERATING COST	3.496	2.187

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHUS	TOTAL PROF	NON- PROF
MILITARY	282	1	18	264
CIVILIAN	22	0	7	15
TOTAL	304	1	25	279

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		REAL	PROP
647155	5.231	14.341	283.565	303.137	12.19	8.225

#### ...MISSION

PLAN, CONDUCT, EVALUATE, REPORT ON ENVIRONMENTAL PHASE OF DEVELOPMENT TESTS EMPLOY INTEGRATED TESTING POLICIES DURING DEVELOPMENT TESTING. PROVIDE TECH INFO, ADVICE, GUIDANCE ON TESTS TO GOVT AGENCIES AND INDUSTRY. CONDUCT OTHER TESTS AND EVALUATIONS AS DIRECTED BY CG TECOM.

#### ...CURRENT IMPORTANT PROGRAMS

COPPERHEAD/GROUND LASER LOCATOR DESIGNATOR  
ROLAND  
GROUND EMPLACED MINE SCATTERING SYSTEM  
SURFACE LAUNCHED UNIT FUEL AIR EXPLOSIVE  
XM252 81 MM MORTAR, UNITED KINGDOM

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITY CAN ACCOMMODATE A WIDE VARIETY AND LARGE NO OF TESTS AT ANY ONE TIME. SEVERAL VEH TEST COURSES AND EXTENSIVE CROSS COUNTRY TERRAIN RANGES ARE VERSATILE. 500 THOUS ACRE ISOLATED IMPACT AREA, 50KM MAX UNOBSERVED RANGE. LARGE RESTRICTED AIRSPACE AREA WITH UNRESTRICTED FIRING TO 5000 FT ORDINATE. COORDINATION WITH FAA CAN EFFECT UNRESTRICTED ORDINATE. 1ST 2ND OR 3RD ORDER SURVEY POINTS. GOOD SECONDARY ROADS. PHONE/NGN-TAC RADIO AT ALL RANGES AND TEST SITES. AUTODIN, FACSIMILE TELETYPE, PHOTO LAB AND MAINT FOR MAJORITY OF EQUIP INCL ACFT, US/GS CALIBRATION, SVCS, LIMITED ENGINEER SUPPORT. UNIA ACFT, AF SPT CAN BE ARRANGED. MFT TEAM SUPPORT AVAILABLE. INST FOR MOST ITEMS ON HAND, CAN OBTAIN OTHER INSTRUMENTS. MOVING TARGET SYSTEM, REMOTE SAKTS TARGET SYSTEM, E.O.D, STATISTICAL AND MAINTENANCE EVALUATION CAPABILITIES AVAILABLE. ADEQUATE COMPUTER FACIL.

INSTALLATION: COMBAT SURVEILLANCE & TGT ACQUISITION LAB FT. MONMOUTH, N.J.

CDR. DIR. COL. J. G. MIKULA

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	34.590	38.757
TOTAL PROCUREMENT	20.183	39.881
TOTAL O&M	0.786	0.941
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	55.559	79.579
TOTAL INHOUSE	12.319	12.604
TOTAL INHOUSE RDT&E	9.749	9.350
ANNUAL OPERATING COST	1.943	2.079

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	14	0	7	7
CIVILIAN	165	3	103	62
TOTAL	179	3	110	69

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		OTHER	REAL PROP
35	52.324	6.139	10.589	69.052	0.95	11.333

#### ...MISSION

CONDUCT ALL PHASES OF R&D INCL PROD IN THE FOLLOWING PHYSICAL SCIENCES & ASSOCIATED TECHNOLOGIES - IDENT FRIEND FOE NEUTRAL; DATA TRANSMISSION & PROCESSING; NUCLEAR RADIATION DETECTION & MEASUREMENT; RADAR; ACOUSTIC WEAPONS LOCATION; REMOTE SENSING; AND IMAGERY INTERPRETATION.

#### ...CURRENT IMPORTANT PROGRAMS

PROCUREMENT OF MOBILE GROUND IMAGERY INTERPRETATION CENTER.  
ADV DEV OF BATTLEFIELD IDENT FRIEND OR FOE.  
DEV OF ADV GROUND SURV & TARGET ACQ RADAR SYSTEM.  
ADV DEV & INITIAL PROD OF VARIOUS RADIAL SETS & DOSIMETERS  
EXPL DEV OF VARIOUS CS&TA SENSORS & DATA XMSN TECHS & SYSTEMS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

RADAR TECHNIQUES DEVELOPMENT FACILITIES, INCL MICROWAVE DARKROOM, ANTENNA PATTERN & TEST RANGE, 65-FT RADAR TEST PLATFORM. OUTDOOR & INDOOR RANGES INSTRUMENTED FROM 30 MHZ TO 70 GHZ. MOBILE SPECTRAL & TIME DISTRIBUTION MEASUREMENT FACILITIES. RADAR INSTRUMENTATION FACILITY CAPABLE OF TRACKING X-BAND RADAR & COLLECTING & RECORDING POSITIONS, VELOCITY, AND SIGNAL STRENGTH, INCLUDING A SHORT RANGE SEARCH CAPABILITY. DATA INFORMATION INVESTIGATION; STUDIES AIMED AT BANDWIDTH REDUCTION, AJ TECHNIQUES, INFORMATION PROCESSING, DIGITAL FRAME STORAGE MEMORY CIRCUITS AND MULTI-ELEMENT, MULTI-FUNCTION, MULTI-BEAM ANTENNA SYSTEMS. RADIOLOGICAL ASSISTANCE TEAM EXPERIENCED IN FUNCTIONING NEAR NJC DETONATIONS, FALLOUT FIELDS, & RADIOLOGICAL ACCIDENTS. ALPHA, BETA, & GAMMA SURVEY METERS; NEUTRON & GAMMA DOSIMETERS.



INSTALLATION: COMMUNICATIONS - ELECTRONICS BOARD

FT. GORDON, GA.

PRES. COL. NORMAN E. ARCHIBALD ENGR. ADV. MP. RONNIE E. BRACKETT

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	1.263	1.155
TOTAL PROCUREMENT	0.009	0.025
TOTAL U&M	0.076	0.023
TOTAL OTHER	0.851	1.229
TOTAL ANNUAL LAB	2.199	2.432
TOTAL INHOUSE	2.199	2.432
TOTAL INHOUSE RDT&E	1.263	1.155
ANNUAL OPERATING COST	0.189	0.443

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	62	0	43	19
CIVILIAN	31	0	7	24
TOTAL	93	0	50	43

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL	PROP	EQUIP
7	0.000	18.960	2.488	21.448	0.12		0.077

...MISSION

PLANS, CONDUCTS AND REPORTS ON OPERATIONAL TESTS OT I, II, AND III OF C-E SYSTEMS AND FORCE DEVELOPMENT TESTING AND EXPERIMENTATION AS PUBLISHED IN THE DA FIVE YEAR TEST PROGRAM. CONDUCTS CONCEPT EVALUATION PLANS AND OTHER USER-RELATED/CUSTOMER TEST DIRECTED BY TRADUC

...CURRENT IMPORTANT PROGRAMS

MILLIMETER WAVE LENGTH RADIO  
ARMY DATA DISTRIBUTION SYSTEM/PACKET RADIO EXPERIMENT  
DIVISION LEVEL DATA ENTRY DEVICE  
ASYNCHRONOUS DIGITAL COMBINER  
VIDEO TECHNICAL CONTROL CENTER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

NO MAJOR EQUIPMENT, HOWEVER CAPABILITY EXISTS TO ACCOMPLISH ABOVE MISSION

INSTALLATION: COMMUNICATIONS R & D COMMAND

FT MONMOUTH, N.J.

CDR.MG. EMMETT PAIGE, JR.

TECH.DIR.MR. THEODORE PFEIFFER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	49.157	60.485
TOTAL PROCUREMENT	7.415	4.500
TOTAL O&M	2.656	3.130
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	59.228	68.115
TOTAL INHOUSE	6.274	12.186
TOTAL INHOUSE ROT&E	5.431	10.856
ANNUAL OPERATING COST	1.040	1.145

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHOS	TOTAL PROF	NON- PROF
MILITARY	28	0	13	15
CIVILIAN	421	10	271	150
TOTAL	449	10	284	165

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	UTHER	TOTAL	REAL PROP	EQUIP
0	72.746	4.642	0.000	77.388	0.00	10.800

#### ...MISSION

CONDUCT R & D RELATED TO COMM EQUIP AND SYSTEMS, INCLUDING FIELDS OF RADIO, TELEPHONIC, FACSIMILE AND DATA COM; COMSEC AND COMM. PROC. CONDUCT AND DIRECT TECH BASE R & D PROG IN TACT ADP SYSTEMS AND COMP SCI DEV MULTI-APPL TACT ADP HARDWARE AND SOFTWARE, MANAGE THE C3 AND ARMY INTEROP SYS

#### ...CURRENT IMPORTANT PROGRAMS

FIBER OPTICS  
ARMY DATA DISTRIBUTION SYSTEM  
DIGITAL GROUP MULTIPLEXER  
MILITARY COMPUTER FAMILY AND INTELLIGENCE TERMINAL FAMILY  
ARMY C3 AND INTEROPERABILITY SYSTEM ENGINEERING

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

TELEPROCESSING DESIGN CENTER IS LAB EXPERIMENTAL FACILITY THAT SUPPORTS EXPERIMENTS WHICH ALLOW OPTIMUM DEVELOPMENT AND VALIDATION OF ARMY AND JOINT SERVICES TACTICAL DATA SYSTEMS CONFIGURATIONS. TDC HAS EMULATIONS OF ARTAS TACFIRE BATTALION SYSTEM, AN/TSQ73 SUPPORT SOFTWARE SYSTEM. TDC HAS DEVELOPED EMULATIONS OF THE AN/UJK-15 AND AN/UJK-19 COMPUTERS IN SUPPORT OF FIREFINDER AND ATE DEVELOPMENT PROGRAM. C3 SYSTEM ENGRG IS BEING PERFORMED FOR THE ARMY COMMAND CONTROL MASTER PLAN, JINTACCS, INTRA-ARMY INTEROPERABILITY DEVELOPMENTS AND JOINT INTERFACE TESTING

INSTALLATION: CONSTRUCTION ENGINEERING RESEARCH LAB

CHAMPAIGN, IL

CDR. COL. L. J. CIRCEO

TECH. DIR. DR. L. R. SHAFFER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	6.945	7.093
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	1.416	1.769
TOTAL OTHER	2.176	2.678
TOTAL ANNUAL LAB	10.537	11.540
TOTAL INHOUSE	8.684	9.401
TOTAL INHOUSE ROT&E	6.330	6.465
ANNUAL OPERATING COST	1.593	1.890

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHUS	TOTAL PROF	NON- PROF
MILITARY	3	1	2	1
CIVILIAN	204	30	133	71
TOTAL	207	31	135	72

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)	LAH	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
30	76.081	34.159	0.000	110.240	3.89	4.438	

#### ...MISSION

PLAN, EXECUTE, AND EVALUATE RESEARCH TO OBTAIN THE BEST COMBINATION OF ENGINEERING, DESIGN, CONSTRUCTION, OPERATION & MAINTENANCE TO PROVIDE FACILITIES FOR THE MILITARY ESTABLISHMENT AND OTHER AGENCIES AT LEAST COST AND TO DISSEMINATE THE RESEARCH RESULTS.

#### ...CURRENT IMPORTANT PROGRAMS

DEV ENERGY CONS TECH/PROC BY 1985  
 DEV COMP AIDED SYSTS IN PLAN MILITARY FACILITIES  
 DEV MGMT SYST IN CONST OF MILITARY FACILITIES  
 DEV IMPROVED SYST FOR RPMA OF MILITARY FACILITIES  
 DEV SYSTS FOR USA EPA REQMTS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONTROLLED ENVIRONMENT CHAMBER, ONE MILLION POUND CLOSED LOOP MATERIALS TEST SYSTEM, SCANNING ELECTRON MICROSCOPE, 5MW RESISTANCE LOAD BANK AND INSTRUMENTATION, X-RAY EQUIPMENT, SEMI-AUTOMATIC WELDING EQUIPMENT, BIAXIAL SHOCK TEST MACHINE, NON-DESTRUCTIVE TESTING FACILITY, VACUUM INDUCTION FURNACES, METALLOGRAPHIC SAMPLE PREPARATION AND RESEARCH METALLOGRAPH X-RAY DIFFRACTION AND VACUUM SPECTROSCOPY SYSTEM, DYNAMIC TENSION ANALYSIS SYSTEM, DIGITAL RECORDING ANALYSIS EQUIPMENT  
 FACILITIES CAPABILITIES INCLUDE SYSTEMS BUILDING METHODS AND TECHNIQUES, COMPUTER BASED DESIGN AND CONSTRUCTION MANAGEMENT TECHNIQUES, HARDENED FACILITIES ANALYSIS, ENVIRONMENTAL QUALITY MANAGEMENT, POLLUTION CONTROL AND ABATEMENT, MILITARY HOUSING SYSTEMS, POWER GENERATION SYSTEMS, UTILITIES SYSTEMS ANALYSIS AND EVALUATION, AND ARCHITECTURAL RESEARCH.

INSTALLATION: DUGWAY PROVING GROUND

DUGWAY,UT.

CDR.COL. CHARLES H. BAY

SCI.DIR.DR. MURTIMER A. KOTHENBERG

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	17.594	17.363
TOTAL PROCUREMENT	0.363	0.300
TOTAL U&M	2.790	1.457
TOTAL OTHER	3.506	3.460
TOTAL ANNUAL LAB	24.253	22.580
TOTAL INHOUSE	21.397	20.334
TOTAL INHOUSE ROT&E	15.306	15.613
ANNUAL OPERATING COST	9.759	11.005

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	159	1	10	149
CIVILIAN	619	15	73	546
TOTAL	778	16	83	695

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
802731	104.875	201.133	1643.266	1949.274	79.99	28.762

..MISSION

DUGWAY PLANS & CONDUCTS APPROVED TESTS TO ASSESS THE MILITARY VALUE OF CML WEAPONS, SMOKE/OBSCURANTS & CML-BIO DEF SYS. TESTS SPT R&D & PROVIDE BASIS FOR DEVELOPMENT OF NEW OPERATIONAL & LOGISTICAL CONCEPTS FOR EMPLOYMENT OF TESTED SYS. TESTS ARE RESPONSIVE TO USER REQUIREMENTS.

..CURRENT IMPORTANT PROGRAMS

CONDUCTS SERVICE DEV CML CML-BIO DEFENSE SMOKE/OBSCURANT TEST PROGRAMS  
CONDUCTS R & D & LAB INVESTIGATIONS NECESSARY TO SUPPORT MISSION  
CONDUCTS JT OF CML & CML-BIO DEFENSE TESTS/STUDIES FOR CINCS, SERVICES  
CONDUCTS PROG TO SUP ARMY POLL ABATEMENT HAZARD EVAL & DEMIL OPNS  
CONDUCTS ECOLOGICAL EPIDEMIOLOGICAL & TOXICOLOGICAL SURVL OF DPG AREA

..FUNCTIONS/EQUIPMENT/CAPABILITIES

INST GRIDS FOR CML CML-BIO TESTS: ARMY RG FOR CONVL & CML METAL PARTS, BALLISTIC & DISSEM TESTS: WITH FIELD SMPL, SMPL MASS ANAL, MET(AUTO DATA ACQ & MESUMET NETWK)SYS. TSPI(RADAR SLAVE PHOTO)SYS; PHYS & ENVIRON TEST FAC(MIL SPEC 810) CHAMBERS FOR TOTAL AGENT CONTAINMNT; EXPLO SHIELDING PROPAGATION & OVERPRESSURE MEASMNTS, OPNS SPTD BY MET RSCH ON BEHAVIOR OF CLOUDS; CML, LIFE SCI TECHN, ECOL SURVL OF DPG; CAPBL FOR PLANNING ANAL, EVAL OF TESTS, OPNS RSCH; LABS EQUIPD FOR WIDE RNG OF CML, MICROBIOL, TOXICOL, IMMUNOL, ECOL, EPIDEMIO, POLL CNTRL STUDIES; CAPBL FOR PROD BIO SIMUL AG; TECHN & MASS ASSAY OF FLUORESCENT AIR TRACERS; EXTENSV COMM & RG SAFETY SYS. OUTSTANDING ARE LARGE LAND AREA, RESTRICTED AIR SPACE, LONG & FLAT ARMY RANGES, PROJECTILE RECOVERY, SONIC & ELECTROMAG STERILITY, DIVERSE SKILLS.

INSTALLATION: ELECTRONIC PROVING GROUND

FT. HUACHUCA, AR.

CDR. COL. JAMES H. PHILLIPS

TECH. DIR. MR. GRADY H. BANISTER, JR.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	10.162	11.360
TOTAL PROCUREMENT	3.235	3.600
TOTAL O&M	2.062	2.300
TOTAL OTHER	11.023	10.262
TOTAL ANNUAL LAB	26.482	27.522
TOTAL INHOUSE	19.594	19.724
TOTAL INHOUSE RDT&E	5.980	6.700
ANNUAL OPERATING COST	7.919	8.667

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	587	0	47		540
CIVILIAN	213	1	56		157
TOTAL	800	1	103		697

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)				TOTAL	REAL PRUP	EQUIP
	LAB	ADMIN	UTHER				
66000	0.000	50.300	215.242	265.542	7.12	51.200	

#### ...MISSION

PLAN, CONDUCT, EVALUATE AND REPORT ON DEVELOPMENT AND OTHER ENGINEERING/LAB-TYPE TESTS OF GROUND AND AIRBORNE EQUIPMENT AND SYSTEMS THAT UTILIZE ELECTRONIC/ELECTROMAGNETIC TECHNOLOGY. MAINTAIN MODERN TEST FACILITY, INSTRUMENTATION, AND METHODOLOGY CAPABILITY.

#### ...CURRENT IMPORTANT PROGRAMS

STAND-OFF TARGET ACQUISITION SYSTEM  
POSITION LOCATION REPORTING SYSTEM  
SINGLE CHANNEL GROUND AIRBORNE RADIO SYSTEM  
C3I SYS TEST CAPABILITY  
AUTOMATIC COMMUNICATIONS CENTRAL OFFICE

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT TESTS OF HW/SOFTWARE, DOCTRINAL CONCEPTS/SCENARIOS TEST CAPABILITY INCL TEST OF COMM, IMAG, IMAGERY INTERPRETATION MET, RADAR, LASER INTEL, EW, CMD/CTRL, PWR SOURCES, RPV, GND+SCTY SENSORS SYS/EQUIP INCL EMC, EMI, EMV, ECM, ECCM, TEMPEST AND INTRA/INTEROPERABILITY ANAL AS REQ. TECHNIQUES INCL BENCH AND FLD TEST W/ACCESS TO EXTENSIVE REAL EST, MATH MODEL AND SIM FACILITIES INCL: EM, CLIMATIC/STRUCT ENVIRON, INSTRUMENTED SPACE PUS RANGE (3 FPS-16/CAPRI), TEMPEST, C3I SYS TEST INCL A REALISTIC EM BATTLEFIELD, ANTENNA PATTERN, ELECTRO-OPT AND VARIOUS ENVIRONMENTAL FACILITIES INCL NUCLEAR, PERFORM RELIABILITY, AVAILABILITY AND MAINTAINABILITY (INCLUDE MAINTENANCE MANUALS, REPAIR PARTS, SPECIAL TOOLS), SAFETY AND HFE TEST, CONDUCT/PARTICIPATE IN RELATED DOCTRINAL AND CONCEPT STUDIES AND TEST FOR ARMY, OTHER SERVICES AND DOD AGENCIES.

INSTALLATION: ELECTRONIC WARFARE LABORATORY

FT. MONMOUTH, N.J.

ACTG. DIR. MR. MAX ADLER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&F	46.159	44.917
TOTAL PROCUREMENT	35.708	33.318
TOTAL O&M	4.825	6.390
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	86.692	84.625
TOTAL INHOUSE	33.307	29.096
TOTAL INHOUSE RDT&F	24.202	20.124
ANNUAL OPERATING COST	3.655	4.737

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	85	1	17	68
CIVILIAN	411	9	248	163
TOTAL	496	10	265	231

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
6	142.936	37.617	48.502	229.055	92.76	42.961

#### ...MISSION

RES, DEV, INITIAL ACQ AND FIRST FIELDING OF EW AND SELECTED INTEL MATERIAL INCL EW PROTECT OF COMBAT VEHCLS, INTERCEPT, OF, LOCATION, SIG ANALYSIS, ECM, DECEP, VULNERABILITY/COUNTERCOUNTERMEASURES, SOFTWARE SUPPORT FOR ERADCOM, SYS, ACQ NON STANDARD INTEL TECHNICAL MATERIAL.

#### ...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF ARTILLERY FIRED/HAND EMPLACED EXPENDABLE JAMMERS  
PRODUCTION OF SIGINT EQPT QUICK LOOK, GUARDRAIL, AND QUICK FIX  
DEVELOPMENT OF CCM TECHNIQUES FOR SINGARS  
DEVELOPMENT OF ECM AND WARNING EQPT FOR SELF PROTECTION OF COMBAT VEHCL  
EW VULNERABILITY INVESTIGATION OF MISSILE SYST, EG PATRIOT, RULAND, DIVAD

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

ENCOMPASSES APPLD RDA INCL QRC DEV AND SPT IN INTERCEPT, OF, SIG ANALYSIS.  
JAM, DECEP, SIG INTEL, ACOUST INTEL, AGT EQUIP, SEC, CM INTEL, VULN AND CCM  
TECHNICAL FACILITIES: SIG CROW(KC-135), AIRBORNE EW LABORATORY, IRCM.  
SIMULATOR (US AND FOREIGN MISSILES), IR MEASUREMENTS AND REDUCTION.  
(YSMS, ISTS, ACFT SIGN), MOB INST FAC, IMDSO PHOTU, PHYS SEC FAC, EWIS  
(URC DATA BASE), WAYSIDE TEST AREA (HF, VHF, DF, JUNGSONDE), ANTENNA RANGE.

INSTALLATION: ELECTRONICS TECHNOLOGY AND DEVICES LAB

FT. MONMOUTH, N.J.

TECH. DIR. DR. C. G. THORNTON

DEP. DIR. MR. S. DANKO

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	22.024	34.330
TOTAL PROCUREMENT	5.795	5.040
TOTAL U&M	0.635	0.518
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	28.454	39.888
TOTAL INHOUSE	14.275	16.586
TOTAL INHOUSE RDT&E	11.876	14.669
ANNUAL OPERATING COST	1.639	1.898

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	0	0	0	0
CIVILIAN	278	33	169	109
TOTAL	278	33	169	109

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP	
	LAB	ADMIN	OTHER				
0	89.500	30.626	7.290	127.426	0.00	14.527	

#### ...MISSION

TO DEVELOP AN ESSENTIAL BASE IN ELECTRONICS TECH & DEVICES CONSISTENT WITH NEXT GENERATION ARMY SYSTEM OPERATIONAL REQUIREMENTS. TO THIS END, AN APPLIED R&D PROGRAM IS PURSUED, FOCUSING ON CRITICAL HARRIER DEVICE AND MATERIAL PROBLEMS THAT INHIBIT DEVELOPMENT OF NEW ARMY SYSTEMS.

#### ...CURRENT IMPORTANT PROGRAMS

HI-SPEED & VERY HI-SPEED SIGNAL PROCESSING DEVICES FOR REAL TIME IDENT & LOCATION OF ENEMY EQUIP & WEAPONS. WIDE BAND EFF JAMMING DEVICES, DECOY COMPONENTS FOR OPERATION FROM EXPENDABLE AB PLATFORMS. MICROWAVE MM-WAVE DEVICES FOR LOCATION IDENT DESTRUCTION OF TARGETS THRU SMOKE INCLEMENT WATHER. LT WT PORTABLE PWR FOR ARMY HI-PWR PULSERS FOR LASERS/WEAPONS.

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES ARE AVAILABLE FOR PERFORMING R&D ON PREPARATION, PROPERTIES & CONTROL OF ELECTRONIC MATERIALS FOR CONDUCTING R&D ON ELECTRONIC PARTS, DEVICES, INTEGRATED CIRCUITS AND ASSEMBLIES. LABORATORIES FOR PERFORMING R&D IN THESE AREAS ARE EQUIPPED WITH THE NORMAL ARRAY OF STANDARD LAB INSTRUMENTATION AND FACILITIES. LABORATORY WORK AREAS INCLUDE FACILITIES FOR THE COMPLETE DESIGN, FABRICATION AND TESTING OF IC'S, HYBRID CIRCUITS ASSEMBLIES, SEMICONDUCTOR DEVICES, QUARTZ CRYSTALS, MICROWAVE AND MM-WAVE DEVICES AND CIRCUITS, ELECTRON TUBES AND DISPLAY DEVICES. ALSO, FACILITIES FOR PRIMARY, SECONDARY & SPECIFIC PURPOSE POWER SOURCES, ELECTROCHEMICAL RESEARCH, CHARACTERIZATION OF ELECTRONIC MATERIALS. THE LAB ALSO PROVIDES ARMY CUSTOMERS WITH EXPERT SERVICES INCLUDING, DIRECT R&D DEVELOPMENT, SUPPORT, CONSULTATION AND DIRECT PARTICIPATION IN SYSTEMS DEVELOPMENT.

INSTALLATION: ENGINEER TOPOGRAPHIC LABORATORIES

FT. BELVOIR, VA.

CDR. COL. DANIEL L. LYCAN

TECH. DIR. MR. R. P. MACCHIA

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	23.253	27.720
TOTAL PROCUREMENT	0.000	0.000
TOTAL USM	2.101	2.141
TOTAL OTHER	0.211	0.225
TOTAL ANNUAL LAB	25.565	30.086
TOTAL INHOUSE	10.402	12.550
TOTAL INHOUSE RDT&E	8.994	10.843
ANNUAL OPERATING COST	2.798	3.100

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	15	1	9	6
CIVILIAN	299	19	173	126
TOTAL	314	20	182	132

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
33	90.722	7.000	13.300	111.022	6.00	8.713

...MISSION

RESEARCH AND DEVELOPMENT IN TOPOGRAPHIC SCIENCES, MAPPING, POINT POSITIONING, AND MILITARY GEOGRAPHIC INFORMATION, OPERATIONAL SUPPORT, TERRAIN ANALYSIS, AND SCIENTIFIC/ADVISORY SERVICES. REMOTE SENSING, COMPUTER TECHNOLOGY, ENVIRONMENTAL EFFECTS DATA.

...CURRENT IMPORTANT PROGRAMS

SUPPORT TO PERSHING II  
SUPPORT TO MX MISSILE PROGRAM  
SUPPORT TO ARMY SPACE PROGRAM  
EXPERIMENTAL DIGITAL INTERACTIVE FACILITY  
QUICK RESPONSE MULTICOLOR PRINTER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE A CARTOGRAPHIC LABORATORY TO STUDY THE PROBLEMS ASSOCIATED WITH HANDLING DIGITAL CARTOGRAPHIC DATA, A DIGITAL IMAGE PROCESSING LABORATORY TO STUDY THE MANIPULATION AND ENHANCEMENT OF TERRAIN IMAGERY FOR OBTAINING MAPPING AND GEOGRAPHIC DATA, COMPUTER ASSISTED PHOTO-INTERPRETATION STATIONS FOR EXTRACTION OF TERRAIN FEATURES, AND A COHERENT OPTICS LABORATORY FOR DETERMINING THE POTENTIAL OF COHERENT OPTICS FOR TOPOGRAPHIC DATA PROCESSING. COMPUTATIONAL EQUIPMENT INCLUDES THE CDC 6400, GOODYEAR STARKAN S-1000, DEC PDP 1150 AND PDP 1170. OTHER SPECIALIZED EQUIPMENT INCLUDE A CUMTAL, DICOMED, PDS DIGITAL AUTOMATED MICRODENSITOMETERS, A RECORDING OPTICAL SPECTRUM ANALYZER AND PRECISION MENSURATION EQUIPMENT.



INSTALLATION: ENGINEER WATERWAYS EXPERIMENT STATION

VICKSBURG, MS.

CDR. COL. NELSON P. CONOVER

TECH. DIR. MK. F. R. BROWN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RD&E	16.227	18.235
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.186	0.220
TOTAL OTHER	42.252	47.345
TOTAL ANNUAL LAB	58.665	65.800
TOTAL INHOUSE	47.240	52.000
TOTAL INHOUSE RD&E	14.218	15.045
ANNUAL OPERATING COST	8.124	9.511

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	16	0	17		1
CIVILIAN	1381	81	493		888
TOTAL	1397	81	510		889

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
722	1724.058	359.819	170.488	2254.365	20.62	37.524

#### ...MISSION

MIL&CIV FUNDED RSCH, DEV&INVS IN HYD, ECOLOGY, PERM&EXPEDIENT PAVEMENTS, SOIL, CONCRETE, EXPLD WPN EFF, EXPLD EXCAVATION, VEH MOBILITY&ENVIRONMENTAL ASPECTS OF MIL OPERATIONS. OPERATE TECH LIBRARY&GOVERNMENT CEMENT&PUZZOLAN TEST PROGRAM. SERVES CE, DARCOM, DNA, DOE, AF, NAVY, EPA & OTHER AGENCIES.

#### ...CURRENT IMPORTANT PROGRAMS

HYDEMATH MODELING TO SOLVE RIVER, TIDAL, WIND-WAVE, ECOLOGICAL&STRUC PROBS. RSCH ON VEH MOBILITY, REMOTE SENSING, ENVIR IMPACTS, & EARTHQUAKE USGN CRIT. NUCEHE RSCH TO DEV CRIT FOR ED OF PROTECTIVE STRUC, BARRIERS&EXCAVATIONS. RSCH, DEV&FORMULATION OF NEW&IMP ENG CRIT ON ROADS, STOR AREAS, & AIRFIELDS. INVS OF CEMENTITIOUS MATERIALS AND RSCH OF MASS AND STRUCTURAL CONCRETE

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

CAPABLE OF PERF GEN INVS IN FLD OF HYD, SOIL MECH, CONCRETE, MOBILITY OF MIL VEH, EXPLD EFF, ECOLOGY&EXPLD EXCAVATION AND DEV OF STRUC & PAVEMENTS DESIGN CRIT. THRU BR&APPLIED RSCH, THE CAPABILITY OF DEV METHODS&TECH AND THE TESTING OF MAT&EQUIP IS EXERCISED TO ASST IN ACCOMPMT OF THE CE MSN. WES RESERVATION CONTN BLDGS, TEST SITES, SPECIAL EQUIP&OTHER PLANT FAC. TEST SITES&FAC FOR SP PURPOSES ARE MAINT IN OTHER AREAS ON PERM OR TEMP BASIS. FAC INCL FLUMES OF DIFF TYPES&SIZES, WAVE&TIDE GENR MACH, DRILL EQUIP, FULLY EQUIPED SOILS, CONCRETE, CHEMISTRY, CALOR, ELCT&TEMPERATURE CON ENVIRONMENTAL MODEL LABS, X-RAY DIFFRACTION&SPECTROSCOPY APPAR, LARGE AND SMALL BLAST LOAD GENERATOR, 200K DYNAMIC LOADER, MOBILITY RSCH FAC, SINGLE AND MULTIPLE WHEEL LOAD CARTS, SUR EFF BLAST FAC, HIGH&LOW FREQ VIBRATORS, ELECTRON MICROSCOPE, LARGE SCALE CMPT FAC AND TECH LIBRARY.

INSTALLATION: FIELD ARTILLERY BOARD

FT. SILL, OK.

PRES. COL. M. J. KLINNE, JR.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDTEE	1.242	1.383
TOTAL PROCUREMENT	0.139	0.172
TOTAL U&M	0.129	0.061
TOTAL OTHER	2.114	2.506
TOTAL ANNUAL LAB	3.624	4.122
TOTAL INHOUSE	3.624	4.122
TOTAL INHOUSE RDTEE	1.242	1.383
ANNUAL OPERATING COST	0.245	0.245

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	152	0	29	123
CIVILIAN	37	0	3	34
TOTAL	189	0	32	157

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAH	ADMIN		OTHER	REAL PROP
23	22.566	32.802	13.335	68.703	3.33	1.080

#### ...MISSION

PLAN CONDUCT AND REPORT ON UT I UT II AND OTHER USER-TYPE TESTS  
 PARTICIPATE IN UT I AND UT II AS DIRECTED  
 PROVIDE ADVICE TO PROPONENT AGENCIES AND DEVELOPERS  
 CONDUCT OTHER TESTS AND EVALUATIONS AS DIRECTED BY TRADOC

#### ...CURRENT IMPORTANT PROGRAMS

OPERATIONAL TEST II XM736  
 OPERATIONAL TEST II SMALL UNIT TRANSCIEVERS  
 ON-SITE USER TEST FIREFINDER RADAR OPER TRAINER  
 OPERATIONAL TEST II XM753  
 OPERATIONAL TEST II COMM MODE SELECTOR CONTROL

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

ONE MET STATION  
 TEST ITEMS ADDITIONAL SUPPORT IS OBTAINED FROM USAFACFS WHEN NEEDED

INSTALLATION: FIRE CONTROL & SMALL CAL. WPNS SYSTS LAB

DOVER, N.J.

CDR. COL. AARON J. LARKINS

DEP. DIR. DR. DONALD A. GYORUG

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	23.264	12.443
TOTAL PROCUREMENT	14.768	6.723
TOTAL U&M	0.000	0.000
TOTAL OTHER	0.286	0.270
TOTAL ANNUAL LAB	38.318	19.436
TOTAL INHOUSE	20.244	10.629
TOTAL INHOUSE ROT&E	12.089	8.403
ANNUAL OPERATING COST	11.484	13.522

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	13	0	11	2
CIVILIAN	566	22	370	196
TOTAL	579	22	381	198

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		OTHER	REAL PROP	EQUIP
3.91	61.183	76.990	0.000	138.173	2.29	7.770	

#### ...MISSION

ACCOMPLISH EXPLORATORY, ADVANCED AND ENGINEERING DEVELOPMENT AND LIFE CYCLE TECHNICAL RESPONSIBILITY FOR FIRE CONTROL AND ALL WEAPON SYSTEMS AND ANCILLARY ITEMS THROUGH 40MM. FIRE CONTROL RESPONSIBILITY INCLUDES ALL VEHICLES, FIELD ARTILLERY, HELICOPTERS, AIR DEFENSE AND INFANTRY.

#### ...CURRENT IMPORTANT PROGRAMS

JOINT SERVICE SMALL ARMS PROGRAM  
FIRE CONTROL AND SMALL CALIBER ARMAMENT TECHNOLOGY  
SQUAD AUTOMATIC WEAPON  
NATO SMALL ARMS FIELD EVALUATION  
MORTAR FIRE CONTROL CALCULATOR

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE LABORATORY CONDUCTS RESEARCH, EXPLORATORY, ADVANCED AND ENGINEERING DEVELOPMENT IN GUN FIRE CONTROL AND SMALL CALIBER WEAPON SYSTEMS. IT MAINTAINS TEST BED FACILITIES WHICH PERMIT EVALUATION OF SYSTEMS IN THE COMMUNITY AREAS OF FIRE CONTROL, AIR DEFENSE AND COMBAT VEHICLES. THE LAB HAS THE CAPABILITY FOR DESIGN AND EVALUATION OF OPTICAL SYSTEMS, MATERIALS AND SIGHTING DEVICES, DIGITAL AND ANALOG SIGNAL PROCESSORS AND GUN/TURRET STABILIZATION AND CONTROL SYSTEMS, SMALL CALIBER WEAPONS, WEAPON MECHANISMS AND MOUNTS, PROJECTILES, PENETRATORS, SHAPED CHARGE LINERS, PROPELLANTS, PRIMERS AND CARTRIDGE CASES. JOINT SERVICE SMALL ARMS PROGRAM, JSSAP FOR CONVENTIONAL AND SPECIAL WEAPON SYSTEMS.

INSTALLATION: HARRY DIAMOND LABORATORIES

WASHINGTON, D.C.

CDR. COL. CLIFTON R. GODDWIN

TECH. DIR. DR. WILLIAM W. CARTER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	72.769	82.571
TOTAL PROCUREMENT	90.378	66.235
TOTAL U&M	4.141	4.114
TOTAL OTHER	1.419	1.130
TOTAL ANNUAL LAB	168.707	154.050
TOTAL INHOUSE	48.100	50.218
TOTAL INHOUSE RDT&E	33.019	38.301
ANNUAL OPERATING COST	12.800	13.500

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHOS	TOTAL PRUF	NON- PRUF
MILITARY	6	1	5	1
CIVILIAN	1148	57	453	695
TOTAL	1154	58	458	696

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
2337	430.802	71.090	269.573	771.465	50.38	38.746

...MISSION

MISSION: ELECTRONIC FUZES, NUCLEAR WEAPONS EFFECTS TECHNOLOGY, SPECIAL RADAR TECH'Y AND SYSTEMS, ELECTRONICS TECH'Y, COMPONENTS, CIRCUITS AND MATERIALS, FLUIDIC COMPONENTS AND SYSTEMS, ELECTRO-OPTICAL DEVICES. SELECTED INSTRUMENTATION/SIMULATORS, COUNTERMEASURES (CM) AND COUNTER-CM

...CURRENT IMPORTANT PROGRAMS

CURRENT SIGNIFICANT PROGRAMS: DEV OF XM818F1 FUZE FOR PATRIOT MISSILE R&D ON FLUIDICS, ORDNANCE ELECTRONICS, NUCLEAR WEAPONS EFFECTS AND NMMW DEVELOPMENT OF XM445 FUZE FOR GENERAL SUPPORT ROCKET SYSTEM DEVELOPMENT OF XM749 AND M735 FUZES FOR 155MM AND 8 IN NUCLEAR ARTILLERY DEV OF ART'Y DELIVERED EXPENDABLE JAMMERS; INSTALLATION SECURITY RADAR

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT AND FACILITIES:

NUCLEAR FACILITIES: GAMMA RAY SIMULATOR (AURORA), HIGH INTENSITY FLASH X-RAY (HIFX), COBALT 60, AND ELECTROMAGNETIC PULSE SIMULATORS.

ELECTRONIC DESIGN FACILITIES: THICK FILM HYBRID CIRCUIT FACILITIES, MICROWAVE ANECHOIC CHAMBER, GAITHERSBURG TEST AREA

FUZING FACILITIES: ARTILLERY SIMULATOR, ENVIRONMENTAL TESTING, BLOSSOM POIN TEST AREA, MAGNETIC SIGNATURE FACILITY.

INSTALLATION: HUMAN ENGINEERING LABORATORY

ABERDEEN PRO.GR.,MD.

DIR.DR. JOHN D. WEISZ

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	8.621	8.697
TOTAL PROCUREMENT	0.084	0.100
TOTAL U&M	0.344	0.300
TOTAL OTHER	0.384	0.425
TOTAL ANNUAL LAB	9.433	9.522
TOTAL INHOUSE	8.098	8.322
TOTAL INHOUSE ROT&E	7.292	7.497
ANNUAL OPERATING COST	3.414	3.472

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	33	1	10	23
CIVILIAN	142	15	103	39
TOTAL	175	16	113	62

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		REAL PROP	EQUIP
12	22.000	26.500	29.000	77.500	4.41	3.806

...MISSION

CONDUCTS FUNDAMENTAL AND APPLIED RESEARCH IN HUMAN FACTORS ENGINEERING. PROVIDES DIRECT DESIGN SUPPORT TO ALL MATERIEL DEVELOPMENT PROGRAMS SPONSORED BY DARCOM. FOURTEEN DETACHMENTS AND/OR LIAISON REPRESENTATIVES HAVE BEEN ESTABLISHED AT DARCOM COMMANDS, CRTC AND TRADOC CTRS/SCHOOLS.

...CURRENT IMPORTANT PROGRAMS

CONDUCT HELBAT TESTS/MAJOR ARTILLERY FIELD TRIALS  
DEVELOPED A CONCEPT DRAGON TRIPOD  
DETERMINE WEAKNESSES IN SPARE PARTS ORDERING  
FEMALE SOLDIER PERFORMANCE TASKS  
HUMAN FACTORS ENG IN SPT OF ALL MATERIEL BEING DEVELOPED BY DARCOM

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DATA ACQUISITION AND BIOTELEMETRY SYSTEMS  
GAT 2M HELICOPTER SIMULATOR  
COMMAND CONTROL SIMULATOR SYS AND TEST FACILITY  
ACOUSTICAL RSCH ANECHOIC CHAMBER REVERBERANT ROOM  
LONG RANGE POSITIONED DETERMINING SYS  
INSTRUMENTED PHYSICAL ENDURANCE COURSE  
EYE MOVEMENT MEASURING DEVICE  
SMALL ARMS TEST FIRING RANGE  
NOISE MEASUREMENT & ANALYSIS INSTRUMENTATION  
WOOD AND METAL WORKING TEST SUPPORT CAPABILITY  
HUMAN PERFORMANCE DATA BANK  
ARMOR TEST SITE

INSTALLATIONS: INFANTRY BOARD

FT. BENNING, GA.

PRES. COL. ARTHUR J. KINZEL

MR. CHARLES H. COSTIGAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	1.563	1.999
TOTAL PROCUREMENT	0.036	0.341
TOTAL O&M	0.037	0.056
TOTAL OTHER	1.590	1.800
TOTAL ANNUAL LAB	3.226	4.196
TOTAL INHOUSE	3.226	4.196
TOTAL INHOUSE RDT&E	1.563	1.999
ANNUAL OPERATING COST	1.053	1.094

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	122	0	3	119
CIVILIAN	55	1	5	50
TOTAL	177	1	8	169

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	0.000	32.203	30.156	62.359	0.90	0.818

...MISSION

PLAN CONDUCT REPORT ON OPERATIONAL TESTS 1/2/3, FORCE DEVELOPMENT TESTS & OTHER TESTS OF EQUIPMENT & ANCILLARY ITEMS TO BE USED BY INFANTRY UNITS FOR COMMAND, CONTROL, FIREPOWER, TARGET ACQUISITION, GROUND SURVEILLANCE, FIRE CONTROL GROUND MOBILITY & TNG & CHEMICAL/BIOLOGICAL EQUI

...CURRENT IMPORTANT PROGRAMS

VIPER OT II  
SQUAD AUTOMATIC WEAPON (SAW OTEA)  
HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE OT II  
SMALL UNIT TRANSCEIVER OT II  
XM30 PROTECTIVE MASK OT II

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AUTOMATED COMPUTERIZED AUTOMATIC & SMALL ARMS WEAPONS RANGE  
CLOTHING & EQUIPMENT TEST FACILITY  
MANNED EVASIVE TARGET TANKS  
NOVA 312 COMPUTER CAPABILITIES

INSTALLATION: INSTITUTE OF DENTAL RESEARCH

WASHINGTON, D.C.

CDR. COL. DUANE E. CUTRIGHT

RSCH. COORD. DR. GINO HATTISTONE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	2.268	2.299
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.167	0.152
TOTAL UTHER	1.266	1.352
TOTAL ANNUAL LAM	3.701	3.803
TOTAL INHOUSE	2.641	2.745
TOTAL INHOUSE RDT&E	1.208	1.241
ANNUAL OPERATING COST	0.614	0.569

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	80	2	40		40
CIVILIAN	26	2	11		15
TOTAL	106	4	51		55

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAM	ADMIN	UTHER			
4	9.325	5.696	6.730	21.751	0.87	1.791

### ...MISSION

DEVELOP TECHNIQUES TO TREAT WAR RELATED MAXILLOFACIAL INJURIES AND DENTAL DISEASES. PREVENTION AND CONTROL OF DENTAL DISEASE. TO PROVIDE DENTAL RESIDENCY PROGRAMS. TO PROVIDE A DENTAL CLINIC FOR RESEARCH AND TRAINING

### ...CURRENT IMPORTANT PROGRAMS

BIODEGRADABLE MATERIALS FOR LONG TERM SLOW RELEASE AND ORGAN REPLACEMENT  
USE OF SALIVA FOR DETECTING EXPOSURE TO CHEMICAL AGENTS IN THE FIELD  
R&D OF NEW AND IMPROVED DENTAL MATERIALS FOR MILITARY USAGE WORLD-WIDE  
STUDIES ON METHODS OF IMPROVING COMBAT CONTAMINATED WOUND HEALING  
STUDIES FOR IMPROVING METHODS OF CONTROLLING INFECTIONS IN COMBAT WOUNDS

### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST AND EVALUATE THE PHYSICAL, CHEMICAL AND MECHANICAL PROPERTIES OF DENTAL METALS, ALLOYS, PLASTICS AND POLYMERS. EVALUATE CHANGES DUE TO ENVIRONMENT AND TRANSPORTATION. CONDUCT RESEARCH IN MICROBIOLOGY, CHEMISTRY, BIOCHEMISTRY, IMMUNOLOGY, RADIATION EFFECTS, PHARMACOLOGY, PHYSIOLOGY, HISTOLOGY AND PATHOLOGY AS THEY RELATE TO DENTAL MILITARY RESEARCH. CONDUCT EPIDEMIOLOGICAL STUDIES ON TRAUMA, DISEASE MAN MACHINE INTERFACE TRAUMA AND FIELD DENTAL EMERGENCIES. STUDY MEANS OF PREVENTING ORAL DISEASE. STUDY THE PSYCHOLOGY OF DENTAL TREATMENT ACCEPTANCE. STUDY NEW MATERIALS AND METHODS MORE CLINICALLY EFFECTIVE IN THE FIELD. DEVELOP AND EVALUATE NEW TECHNIQUES AND NEW MATERIALS TO TREAT COMBAT WOUNDS AND TO TEST THESE IN VARIOUS BIOLOGIC MEDIA. DISSEMINATE AS PRACTICAL ALL INFORMATION TO THE FIELD.

INSTALLATION: INSTITUTE OF SURGICAL RESEARCH

FT. SAM HOUSTON, TX.

CDR COL. BASIL A. PRUITT, JR.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	2.057	2.129
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.000	0.000
TOTAL OTHER	2.265	2.490
TOTAL ANNUAL LAB	4.322	4.619
TOTAL INHOUSE	4.322	4.619
TOTAL INHOUSE RDT&E	2.057	2.129
ANNUAL OPERATING COST	0.908	1.024

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NEW- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	149	22	51		98
CIVILIAN	80	6	19		61
TOTAL	229	28	70		159

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
1	26.424	1.800	22.400	50.624	2.31	2.200

...MISSION

CONDUCTS BASIC AND CLINICAL RESEARCH ON SEVERE BURN INJURIES AND THEIR COMPLICATIONS. PROVIDES TREATMENT FOR BURNED PATIENTS AND TRAINS SPECIFIED PERSONNEL IN THE TOTAL MANAGEMENT OF SUCH PATIENTS. OPERATES 30 BEDS FOR HOSPITALIZATION OF SERIOUSLY INJURED BURN PATIENTS.

...CURRENT IMPORTANT PROGRAMS

BURN INFECTION, TREATMENT AND PREVENTION  
METABOLISM AND NUTRITIONAL EFFECTS OF BURN INJURY IN SOLDIERS  
INFECTION AND MICROBIOLOGIC SURVEILLANCE OF TROOPS WITH THERMAL INJURY  
ALTERATION OF HOST RESISTANCE IN BURNED SOLDIERS  
ASSESSMENT OF L-TRIiodothyronine THERAPY IN THERMALLY INJURED SOLDIERS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PROVIDES CLINICAL AND LABORATORY SUPPORT AND RESEARCH CAPABILITY IN THE FIELDS OF PATHOLOGY, INCLUDING USE OF ELECTRON MICROSCOPE, MICROBIOLOGY, EXPERIMENTAL SURGERY, PHYSIOLOGY, AND BIOCHEMISTRY. MAINTAINS AN ANIMAL COLONY, ELECTRONIC SHOP, SURGICAL LIBRARY, METABOLIC CHAMBER, AND COMPUTER FACILITY.



INSTALLATION: INTELLIGENCE & SECURITY BOARD

FT HUACHUCA, AR.

PRES. COL. ROGER L. DUNLAP

TECH. DIR. MR. PHILLIP E. WRASTAD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	2.759	3.367
TOTAL PROCUREMENT	0.652	1.047
TOTAL U&M	0.000	0.000
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	3.411	4.414
TOTAL INHOUSE	1.041	1.392
TOTAL INHOUSE RDT&E	1.041	1.392
ANNUAL OPERATING COST	0.428	0.627

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	93	0	23		70
CIVILIAN	24	2	8		16
TOTAL	117	2	31		86

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)				TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER				
10	0.000	5.000	42.663		47.663	0.02	1.659

#### ...MISSION

PLAN, CONDUCT AND REPORT ON OT I, OT II, OT III AND OTHER USER TYPE TESTS OF TACTICAL INTELLIGENCE AND SECURITY MATERIAL. PROVIDE ADVICE ON TEST AND EVAL MATTERS TO MATERIAL DEVELOPERS, PRODUCERS, OTHER SERVICES AND PRIVATE INDUSTRY. CONDUCTS TEST AND EVAL AS DIRECTED BY CDR, TRADOC.

#### ...CURRENT IMPORTANT PROGRAMS

QUICK FIX WITHOUT OF AN/ARQ 33  
STANDARD FM RADIO ECM APPLIQUE  
TACTICAL CONTROL ANALYSIS CENTER (DIVISION)  
MOBILE ARMY GROUND IMAGERY INTERPRETATION CENTER  
REMOTE BATTLEFIELD SENSOR SYSTEM

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

ELECTRONIC WARFARE MONITORING FACILITY (EWMF)-TRANSPORTABLE- HOUSED IN A 30 FT ELECTRONIC VAN WITH FOLLOWING CAPABILITY: RECEIVERS-10KHZ-26GHZ, ANTENNAS-30MHZ-40GHZ, TAPE RECORDERS, SPECTRUM ANALYZERS, OSCILLOSCOPES. REQUIRES 5 TON TRACTOR FOR TOWING. OTHER FACILITIES INCLUDE OVER 70000 ACRES AT FT HUACHUCA, 25000 ACRES AT WILCOX DRY LAKE AND 1505000 ACRES AT GILA BEND (UPON REQUEST) THAT CAN BE USED AS RANGES FOR OPERATIONAL TESTING OF INTEL/EW SYSTEMS.

INSTALLATION: KWAJALEIN MISSILE RANGE, MARSHALL ISLANDS

APO SAN FRANCISCO

CDR. COL. R. A. PARSONS

DEP. DIR. MR. U. E. OVA

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	100.940	112.017
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.000	0.000
TOTAL OTHER	7.720	3.720
TOTAL ANNUAL LAB	108.660	115.737
TOTAL INHOUSE	5.670	5.923
TOTAL INHOUSE ROT&E	4.890	5.103
ANNUAL OPERATING COST	0.450	0.500

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	27	0	17	10
CIVILIAN	103	1	52	51
TOTAL	130	1	69	61

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP EQUIP
1491	0.000	158.047	2305.824	2463.871	592.83	160.956

#### ...MISSION

PLAN, MANAGE, DIRECT, CONTROL AND COORDINATE OVERALL ACTIVITIES OF THE KMR IN ACCORDANCE WITH DOD NATIONAL RANGE POLICIES. SERVE AS THE PRINCIPAL ADVISOR FOR ALL MATTERS PERTAINING TO THE KMR RELATIONSHIP WITH THE TRUST TERRITORY OF THE PACIFIC ISLANDS.

#### ...CURRENT IMPORTANT PROGRAMS

BALLISTIC MISSILE DEFENSE R&D TESTING  
 ADVANCED BALLISTIC REENTRY SYSTEMS USAF BMD R&D TESTING  
 MINUTEMAN III USAF BMD R&D TESTING  
 MINUTEMAN II AND MINUTEMAN III USAF SAC OPERATIONAL TESTING  
 SPACE OBJECT IDENTIFICATION USAF SPACE TRACK

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

ALCOR, TRADEX, ALTAR, 2 AN/MP-36, AN/TPW 18, AN/TPX 42 RADARS, 4 RADOTS, 3 SUPER RADOTS, 7 BALLISTIC CAMERAS, 4 SPECTRAL CAMERAS, PHOTO LAB, 5 BAND TELEMETRY RECEIVING SYSTEMS INCL 8 AUTO TRACK ANTENNAS, 1 MOBILE RELAY SYS, RECEIVE & RECORD SYS, DATA SEPARATION AND DISPLAY SYS & DATA DISTRIB SYS, LONG HAUL & INTRA A FULL COMM SYS, METEOROLOGICAL SYS, LAUNCH ORDNANCE LAB, TIMING & COUNTDOWN SYS, FREQUENCY CONTROL & ANALYSIS SYS, 7600/6400 INSTRUMENTATION CONTROL CENTER, AIR TRAFFIC CONTROL SYS INCL TACAN LOW FREQUENCY HOMING BEACON & AG COMMUNICATIONS, CLOSED CIRCUIT TV SYS, DATA REDUCTION FACILITY & INSTRUMENTATION SYS ACCURACY ANALYSIS CAPABILITY

INSTALLATION: LARGE CALIBER WEAPONS SYSTEMS LAB

DOVER, N.J.

CDR. COL. D.P. WHALEN

DEP. DIR. DR. J.T. FRASIER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	130.292	97.691
TOTAL PROCUREMENT	21.600	19.000
TOTAL U&M	5.000	1.000
TOTAL UTHER	0.411	0.383
TOTAL ANNUAL LAB	157.303	118.074
TOTAL INHOUSE	71.159	51.045
TOTAL INHOUSE RDT&E	57.348	41.662
ANNUAL OPERATING COST	31.069	44.196

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	28	0	23		5
CIVILIAN	1763	81	1088		675
TOTAL	1791	81	1111		680

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	UTHER			
12.51	204.685	184.072	128.700	517.457	8.58	66.200

#### ...MISSION

DEVELOP WPNS SYS-GUN/AMMO-40MM&FOR TANKS, ARTY, MORTAR, RECOILLESS GUNS  
AIR DEFENSE, MINES&DEMOL SYS, EXPLOS&WHDS  
SUPPORT TECH IN BASIC&APPLIED RES-LIFE CYCLE ENG&WPN SYS INTEGRATION  
ENG SUPPT DURING PROCUREMENT, PRODUCTION&FIELD USE OF WEAPON SYSTEM

#### ...CURRENT IMPORTANT PROGRAMS

SPT XM1 TANK-120MM AMMO/GUN  
SCATTERABLE MINE SYSTEMS-MOPMS, GEMS,  
ARTILLERY-ESPAS, GUN PROPULSION INCL CHG DSG, REDUCTION WEAR&EROSION,  
IMPROVED SENSING MUNIS-TARG SENS&SELF FORG FRAG WHD-STAFF, SADARM  
IMPROVED NON-NUCLEAR LANCE, PERSHING 2

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

DES&RSI WPNS SYS-GUN/AMMO-40MM&FOR TANKS, ARTY, MORTAR, RECOILLESS GUNS,  
AIR DEFENSE, MINES&DEMOLITION SYS, EXPLOSIVES&WARHEADS  
SUPPORT TECH IN BASIC&APPLIED RESEARCH  
LIFE CYCLE ENG&WEAPON SYS INTEGRATION  
ENG SUPPT DURING PROCUREMENT, PRODUCTION&FIELD USE OF WEAPON SYSTEMS

INSTALLATION: LETTERMAN ARMY INSTITUTE OF RESEARCH

PRESIDIO, S.F., CA.

CDR. COL. JOHN D MARSHALL, JR.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	6.413	5.135
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.090	0.250
TOTAL OTHER	2.557	2.597
TOTAL ANNUAL LAB	9.060	7.982
TOTAL INHOUSE	9.060	7.982
TOTAL INHOUSE RDT&E	6.413	5.135
ANNUAL OPERATING COST	2.316	2.065

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	170	31	125		45
CIVILIAN	108	18	56		52
TOTAL	278	49	181		97

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
9	133.198	36.506	305.309	475.013	42.42	10.333

#### ...MISSION

TO PROVIDE GENERAL MEDICAL RESEARCH CAPABILITY AND CONDUCT RESEARCH IN AREAS OF NUTRITION, FOOD WHOLESOMENESS, DERMATOLOGY, CHRONIC MAMMALIAN TOXICOLOGY, EFFECTS OF LASERS, EXPERIMENTAL PSYCHOLOGY, TRAUMA, RESUSCITATION AND OTHER RESEARCH AS DIRECTED BY CDR USAMRDC.

#### ...CURRENT IMPORTANT PROGRAMS

DETERMINATION OF SAFE THRESHOLD LEVELS OF COHERENT RADIATION  
RESUSCITATION SOLUTIONS FOR THE ACUTELY INJURED  
APPLIED NUTRITION STUDIES OF DOD PERSONNEL  
ADVERSE EFFECTS ON HUMAN SKIN BY ENVIRONMENTAL FACTORS  
COMBAT CASUALTY CARE

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

SURGICAL OPERATING ROOMS, ENVIRONMENTAL ROOMS, GERM FREE ANIMALS, SCANNING TRANSMISSION ELECTRON MICROSCOPES, AUTO ANALYZERS/RECORDERS; AUTOMATIC BETA-GAMMA COUNTERS; SHADOW SHIELD WHOLE BODY COUNTER, GAMMA CAMERA AUTO AMINO ACID ANALYZERS; MASS SPECTROMETER  
RESEARCH INCLUDES: NUTRITIONAL SURVEYS AND RATION TESTING; BIOMED COMPUTER RESEARCH; BASIC AND APPLIED STUDIES OF TRACE MINERAL METABOLISM NUTRIENT REQUIREMENT AND INTERRELATIONSHIP; EXPERIMENTAL SURGERY, BIOCHEM STUDY OF MUSCLE METABOLISM, EXERCISE AND FATIGUE IN MAN; STUDIES OF DELAY HYPERSENSITIVITY, STUDIES ON BLOOD PRESERVATION; OPTIMAL BLOOD STORAGE CONDITIONS AND CELL FREE RESUSCITATION FLUIDS; MAINTAINS BREEDING COLONY OF SPECIAL ANIMAL STRAINS; COMPUTER ENHANCED TOXICOLOGICAL RESEARCH; BIOMED ASPECTS OF CHEMICAL DEFENSE.

INSTALLATION: MATERIALS AND MECHANICS RESEARCH CENTER

WATERTOWN, MA.

COR. COL. W.R. BENOIT

DIR. DR. E. S. WRIGHT

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	25.691	27.247
TOTAL PROCUREMENT	7.177	7.536
TOTAL O&M	3.736	3.899
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	36.604	38.682
TOTAL INHOUSE	20.018	21.267
TOTAL INHOUSE RDT&E	15.902	16.969
ANNUAL OPERATING COST	5.558	5.836

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	18	1	10	8
CIVILIAN	604	61	190	414
TOTAL	622	62	200	422

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		REAL PROP	EQUIP
48	389.161	83.380	160.030	632.571	16.59	16.150

#### ...MISSION

MANAGE DARCOM STRUCTURAL MATLS AND MECHANICS PROGRAM. EXECUTE PROGRAM IN-HOUSE & BY ASSIGNMENT & FUND TRANSFER TO OTHER DARCOM FACILITIES, EDUCATIONAL & INDUSTRIAL CONTRACTORS; MANAGE FIVE INFORMATION CENTERS; ASSIST IN DESIGN OF AND DEVELOPMENT OF PROTOTYPE MATERIEL COMPONENTS.

#### ...CURRENT IMPORTANT PROGRAMS

MATLS RESEARCH AIRCRAFT  
MATLS RESEARCH ARMAMENT  
MATLS RESEARCH ARMORED VEHICLES  
MATLS RESEARCH MISSILES  
MATLS RESEARCH MULTI-MISSION/SPECIAL REQUIREMENTS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

MANTECH PROGRAMS. INSURE THE EFFECTIVE DEVELOPMENT, MANAGEMENT, AND COORDINATION OF TECHNICAL PROGRAMS IN CHEMICAL & PHYSICAL PROPERTIES, EXECUTE ASSIGNED PHASES OF INTERNATIONAL STANDARDIZATION AND OTHER PROGRAMS, DEVELOPS LONG RANGE R&D PLANS AND LONG RANGE MM&T PLANS CONSISTANT WITH THE OBJECTIVES OF THE ARMY, DEVELOPS OTHER GUIDANCE AS PROVIDED BY DARCOM INCLUDING ASSESSMENTS OF GOVERNMENT AND PRIVATE RESEARCH IN RELATION TO PLANS, CONDUCTS & MANAGES BASIC, APPLIED, AND ADVANCED RDT&E ON MATERIALS SUCH AS CERAMICS, METALS, ORGANIC POLYMERS, AND METAL AND ORGANIC MATRIX COMPOSITE MATERIALS; TO IDENTIFY AND INVESTIGATE FACTORS INVOLVED IN THE DEVELOPMENT, PROCESSING, AND APPLICATION OF NEW AND IMPROVED MATERIALS. CONDUCTS MANUFACTURING METHODS AND TECHNOLOGY PROGRAMS; ADVISE COMMANDS AND INDUSTRY ON PROCESSING TECHNIQUES

INSTALLATION: MATERIEL SYSTEMS ANALYSIS ACTIVITY

ABERDN.PROV.GROUND,MD

ACTING DIR.COL. ALBERT DEPRUSPERO

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RD&E	16.564	17.981
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	4.089	2.542
TOTAL OTHER	0.615	0.729
TOTAL ANNUAL LAB	21.268	21.252
TOTAL INHOUSE	15.120	14.577
TOTAL INHOUSE RD&E	10.416	11.306
ANNUAL OPERATING COST	1.674	1.976

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	29	0	13	16
CIVILIAN	411	22	315	96
TOTAL	440	22	328	112

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	UTHER	TOTAL	REAL PROP	EQUIP
	0.790	95.814	5.245	101.849	2.07	0.767

#### ...MISSION

PROVIDES THE CENTRAL INDEPENDENT TECHNICAL CAPABILITY FOR DARCOM FOR THE CONDUCT OF MAJOR SYSTEMS ANALYSIS AND COST EFFECTIVENESS STUDIES. SERVES AS DARCOM LEAD ACTIVITY FOR SURVIVABILITY AND RELIABILITY, AVAILABILITY, AND MAINTAINABILITY METHODOLOGY.

#### ...CURRENT IMPORTANT PROGRAMS

TEST DESIGN & EVAL OF AAH,HELLFIRE,FIGHTING VEHICLE SYSTEM,PATRIOT,& XM1 EFFECTIVENESS & SURVIVABILITY OF PATRIOT, HEL, AAH, AND HELLFIRE  
INDEPENDENT EVAL OF XM1,CUPPERHEAD,GSRS,PATRIOT,SOTAS, AND VIPER  
EVALUATE DEV TEST OF AN/TPQ-36 AND TACFIRE DATA LINKS  
PREPARE AIR-TO-AIR/AIR-TO-SURF JOINT MUNITIONS EFFECTIVENESS MANUALS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

AMSAA MISSION CAPABILITIES INCLUDE: PERFORMING INDEPENDENT TEST DESIGN AND OVERALL EVALUATION FOR DECISIONS ON MAJOR, DESIGNATED NON-MAJOR, AND SELECTED OTHER SYSTEMS; PROVIDING OVERVIEW OF LIFE CYCLE SURVEILLANCE PROGRAMS FOR MATERIEL SYSTEMS IN INVENTORY; PROVIDING WEAPON SYSTEM EFFECTIVENESS ESTIMATES FOR COST AND OPERATIONAL EFFECTIVENESS ANALYSES; PROVIDING SYSTEMS ANALYSIS SUPPORT TO DARCOM MAJOR SUBORDINATE COMMANDS AND PROJECT/PRODUCT MANAGERS; MAINTAINING DIRECT CONTACT WITH ARMY MATERIEL USERS IN THE FIELD; SERVING AS THE DARCOM FIELD ACTIVITY FOR ADMINISTERING THE JOINT TECHNICAL COORDINATING GROUP FOR MUNITIONS EFFECTIVENESS (JTCC/ME), AND PERFORMING LOGISTICS AND READINESS RELATED ANALYSIS.

INSTALLATION: MATERIEL TESTING DIRECTORATE

ABERDEEN PROV. GR., MD.

CDR. COL. CHARLES W. BINNEY

ACTG. DIR. DONALD RESCH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	34.360	34.913
TOTAL PROCUREMENT	8.607	8.746
TOTAL O&M	0.881	0.895
TOTAL OTHER	5.529	5.104
TOTAL ANNUAL LAB	49.377	49.658
TOTAL INHOUSE	48.033	48.293
TOTAL INHOUSE RDT&E	33.272	33.808
ANNUAL OPERATING COST	21.098	23.612

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	214	0	23	191
CIVILIAN	703	8	446	257
TOTAL	917	8	469	448

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
22865	724.317	4.351	269.547	998.215	17.24	43.344

#### ...MISSION

PLAN CUT & REPT TESTS OF WPNS WPN SYS RKTS & GM SYS FIRE CON & TGT ACQ  
EQUIP ITEMS OF AMMU & MUN COMPONENTS CRT VEHs OTHER AUTO MAT GEN EQUIP.  
PROV CUR SVCS FOR PROC OF ARMOR PLATE FOR ALL DARCOM INSTLS & ACTIVITIES  
PROV SUPPORT SVCS TO APG ELEMENTS & SUPPORTED COMMANDS.

#### ...CURRENT IMPORTANT PROGRAMS

XM1 TANK SYSTEM  
GROUND-EMPLACE MINE-MARKING SYS  
120MM GUN INTEGRATION PROGRAM  
INFANTRY FIGHTING VEHICLE  
10 TON HIGH MOBILITY TRK (MAN) PRG

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST AREA 68700 ACRES. RANGE TO LAND IMPAC. 26000M RANGE TO WATER IMPACT  
30000M. 41 MILES OF AUTMV CRS INCL 27 SP ENGR TEST CRS & OBSTACLES. VAR OF  
ENVIR OR COND EQUIP. SP CHAMBERS FOR SUBJECTING EQUIP TO DUST, SALT SPRAY  
OR SOLAR RADN. ISOLATED VIBRATION TEST FAC WHICH PERMITS SHAKING EXPLO  
EQUIP SIMULTANEOUSLY WITH TEMP CONDITIONING FAC. FOR CONTROLLED TESTS OF  
ELEC CONG GUIDANCE EQUIP. FREQ SOURCE WHICH PERMITS TESTING ALL TYPES OF  
MAT IN PRESENCE OF A HIGH INTENSITY ELEC MAGNETIC RADN. SP FAC FOR TEST  
OF ARMOR PLATE. SP VEL & TGT EQUIP IS AVAIL FOR OBSERVATIONS DURING RAPID  
FIRE AS IS RKT TRACK FOR CONTROLLED TERMINAL BALLISTIC TESTS. FAC AVAIL  
FOR TESTS OF SP ELECTRONIC & FIRE CON EQUIP & RELATED SYS & COMPONENTS.  
PULSE RADIATION FAC AVAIL FOR USE IN RADIATION TESTING NUCLEAR EFFECTS.  
SIMULATION REACOR TECHNOLOGY & RADIATION PHYSICS

INSTALLATION: MEDICAL BIOENGINEERING R&D LABORATORY

FT. DETRICK, MD

CDR. COL. JOHN N ALBERSTON, JR.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	3.561	4.276
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.043	0.030
TOTAL OTHER	1.041	0.728
TOTAL ANNUAL LAB	4.645	5.034
TOTAL INHOUSE	4.455	4.643
TOTAL INHOUSE RDT&E	3.371	3.885
ANNUAL OPERATING COST	1.041	1.138

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	34	3	17	17
CIVILIAN	102	15	39	63
TOTAL	136	18	56	80

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
5	45.103	27.300	34.108	106.511	3.22	3.014

#### ...MISSION

CONDUCTS ENG RSCH AND DEVELOPMENT OF MILITARY MEDICAL EQUIPMENT  
 CONDUCTS THE SURGEON GENERAL'S RDT&E PROGRAM IN INTEGRATED PEST MGMT  
 CONDUCTS ENVIRONMENTAL , OCCUPATIONAL HEALTH RESEARCH  
 CONDUCTS LIFE CYCLE SYSTEM MGMT OF MED, DENTAL, AND PEST MGMT MATERIEL

#### ...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF FIELD MED DEVICES AND EQUIP  
 PEST MGMT RDT&E INCLUDING METHODS, MATERIALS, EQUIP AND CONCEPTS  
 DEVELOP OF ENVIRONMENTAL TOXICITY STDS FOR DEMIL . INSTALL RESTORATION  
 ENVIRONMENTAL , OCCUPATIONAL HEALTH RSCH ON SMOKE , OBSCURANTS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

DESIGN, DEVELOP, AND FABRICATE PROTOTYPE AND TEST MODELS OF MIL MED MAT  
 PRODUCE LIMITED QUANTITIES OF MED MAT FOR URGENT MIL REQ  
 DESIGN, DEVELOP, AND FABRICATE PEST MGMT EQUIP AND SYSTEMS  
 DESIGN, DEVELOP, AND FABRICATE PROTOTYPE AND TEST MODELS OF MIL DENTAL MAT  
 PERFORM HEALTH AND ECOLOGICAL EFFECTS RSCH ON ENVIRONMENTAL POLLUTANTS  
 PERFORM PILOT PLANT RSCH FOR WASTEWATER REUSE FOR FIELD ARMY



INSTALLATION: MEDICAL R & D COMMAND

FT. DETRICK, MD.

CDR. BG. G. RAPMUND

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	25.550	27.391
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.258	0.300
TOTAL OTHER	1.491	1.596
TOTAL ANNUAL LAB	27.299	29.287
TOTAL INHOUSE	27.299	29.287
TOTAL INHOUSE RDT&E	25.550	27.391
ANNUAL OPERATING COST	2.074	2.563

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	57	21	39	18
CIVILIAN	92	0	2	90
TOTAL	149	21	41	108

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	0.000	33.022	0.000	33.022	0.15	0.610

...MISSION

ADMINISTRATION AND COORDINATION OF THE MEDICAL RDTF PROGRAM  
PROGRAM LIMITED TO UNIQUE MIL PROBLEMS WITHIN US AND OCONUS

...CURRENT IMPORTANT PROGRAMS

CARE OF THE WOUNDED  
PREVENTION AND CONTROL OF INFECTIOUS DISEASES  
ENHANCEMENT OF MILITARY PERFORMANCE  
PROTECTION AGAINST MILITARY ENVIRONMENTAL HAZARDS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

SERVES AS AN ADMINISTRATIVE HEADQUARTERS FOR THE ARMY MEDICAL DEPARTMENT

INSTALLATION: MEDICAL RSCH INST OF INFECTIOUS DISEASES FT.DETRICK,MD.

CDR.COL. RICHARD F. BARQUIST CH.SCI.DR. WILLIAM R. BEISEL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	8.665	8.915
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL UTHER	4.067	4.453
TOTAL ANNUAL LAB	12.732	13.368
TOTAL INHOUSE	12.732	13.368
TOTAL INHOUSE ROT&E	8.665	8.915
ANNUAL OPERATING COST	4.895	6.201

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	308	48	77		231
CIVILIAN	199	26	70		129
TOTAL	507	74	147		360

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	UTHER			
43	80.854	19.820	209.699	310.373	17.12	6.946

#### ...MISSION

PERF STUDIES ON THE PATHOGENESIS,DIAGNOSIS,PROPHYLAXIS,TREATMENT,  
EPIDEMIOLOGY OF NATURALLY OCCURING INFECT DISEASES OF MIL IMPORT  
WITH EMPHASIS ON PROBLEMS ASSOC WITH THE MED DEFENSE AGAINST BIO AGENTS  
AND ON MICROORGANISMS WHICH REQ SPEC CONTAIN FACILITIES.

#### ...CURRENT IMPORTANT PROGRAMS

DEVELOPMENT OF NEW VACCINES AND TOXOIDS  
IMMUNOLOGICAL STUDIES TO DETERMINE HOW TO IMPROVE VACCINE PRODUCTION  
STUDIES ON PATHOGENESIS OF MILITARILY IMPORTANT INFECTIONS  
DEVELOPMENT OF MORE RAPID AND ACCURATE METHODS OF INFECTION DIAGNOSIS  
AND MEDICAL THERAPY FOR BW DEFENSE

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

TWO LARGE BUILDINGS PROVIDE ABOUT 310,000 SQUARE FEET OF SPACE AND  
CONTAIN 23 MODERN LABORATORY SUITES WHICH REPRESENT THE LATEST IN FUNC  
CONCEPTS,LABORATORY DESIGN AND SAFETY.A COMPLEX PROGRAM OF MEDICAL RES  
IS CONDUCTED AND INCLUDES IMMUNOLOGY,PATHOLOGY,SEROLOGY,BIOCHEMISTRY,  
BIOPHYSICS,MOLECULAR BIOLOGY,AND TISSUE CULTURE.SPECIAL CAPABILITIES  
INCLUDE ELECTRON MICROSCOPY,RADIOIMMUNUASSAY LABORATORIES,A VACCINE  
PRODUCTION SUITE,HOSPITAL FACILITIES FOR MEDICAL PATIENTS AND FOR RES  
STUDIES WITH VOLUNTEERS.USAMRIID RESEARCH IS SUPPORTED BY TWO COMPUTERS  
AND AN ANIMAL FARM.

INSTALLATION: MISSILE RSCH. & DEV. CMD.

REDSTONE ARSENAL, AL.

COR.MG. LOUIS RACHMELEK

ACTG.DIR.DR. JULIAN KOBLER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	66.871	73.741
TOTAL PROCUREMENT	23.397	8.000
TOTAL O&M	7.583	4.146
TOTAL OTHER	2.334	40.376
TOTAL ANNUAL LAB	100.185	126.263
TOTAL INHOUSE	65.825	58.072
TOTAL INHOUSE RDT&E	41.406	44.700
ANNUAL OPERATING CUST	14.255	14.968

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	28	0	19	9
CIVILIAN	973	42	600	373
TOTAL	1001	42	619	382

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
11000	663.993	318.702	428.008	1410.703	131.00	90.000

...MISSION

MANAGE AND CONDUCT RSCH, EXP & ADV DEV FOR ASSIGNED MATERIEL; PROVIDE S&E SPT TO OTHER ACTIVITIES; PLANS, DIRECTS & CONDUCTS RSCH STUDIES & PRGMS TO ADVANCE SYS ENGR & TESTING TECHNOLOGY; PROVIDES CENTRAL ENGR BASE FOR DESIGN & MANUFACTURE OF PROTOTYPE SYS & COMPONENTS OF MATERIELS

...CURRENT IMPORTANT PROGRAMS

TRANSFERRED SEEKER TECHNOLOGY TO ASSAULT BREAKER.  
COLLECTED DATA ON IR/EO SENSORS DURING SMOKE WEEK II.  
FLIGHT DEMONSTRATION OF DIGITAL AUTOPILOT SUCCESSFULLY COMPLETED.  
OBSCURATION PROGRAM.  
PRODUCTION ENGINEERING.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

LAB IS EQUIPPED TO STUDY PROBLEMS IN PROP, AFRO, G&C & STRUCTURES. MAJOR FAC IS MCMORROW LAB WHICH HOUSES MAJORITY OF FACILITY. SOME OF THE UNIQUE FAC ARE: ADV SIM CTR, A COMPUTER COMPLEX SURROUNDED PERIPHERALLY BY 3 ENVIR EFFECTS SIMULATORS; MSL COMPUTER SOFTWARE/HW CTR; SIG EVAL ENVIR CHAMBER; ARMY MSL OPTICAL RANGE DESIGNED TO MEASURE LASER RADAR SIG. MAINTAINS AND OPERATES 7 MAJOR TEST AREAS WHICH ENCOMPASS FLIGHT STATIC, ENVIRONMENTAL & FUNCTIONAL TEST; STATE-OF-THE-ART FACILITIES & EQP SUCH AS LASER TRACKERS & ELECTRO-MAGNETIC RADAR SENSORS. ENGR DESIGN & DEV OF CORRECTIONS TO DESIGN DEFICIENCIES IN FIELDED WPN SYSTEMS. PERFORMS ARMY LEAD LAB FUNCTION IN HIGH POWER/ENERGY LASER RSCH & TECH & MSL RSCH. FAC FOR MELH, ELECT & ELEC FABRICATION & ASSY, & HYBRID MICRO-CIRCUITRY DESIGN ARE AVAILABLE. SMOKE CHARACTERIZATION FACILITY IS ALSO AVAILABLE.

INSTALLATION: MOBILITY EQUIP R & D COMMAND

FT. BELVOIR, VA.

CDR. COL. ALBERT F. DORRIS

TECH. DIR. MR. DONALD B. DINGER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	72.736	82.073
TOTAL PROCUREMENT	154.909	159.800
TOTAL O&M	18.145	19.569
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	245.790	261.442
TOTAL INHOUSE	43.344	45.620
TOTAL INHOUSE RDT&E	30.448	29.280
ANNUAL OPERATING COST	13.664	14.547

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF.
MILITARY	80	1	17	63
CIVILIAN	1182	21	378	804
TOTAL	1262	22	395	867

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				TOTAL REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1064	750.849	146.730	209.879	1107.458	49.09	34.947

#### ...MISSION

ARMY WITH A SUPERIOR COMBAT & DETERRENT CAPABILITY, NOW & IN THE FUTURE EQUIPED WITH TECHNOLOGICALLY SUPERIOR & COST & OPERATIONALLY EFFECTIVE MATERIEL IN BARRIER/COUNTERBARRIER SYS, CTR SURVEILLANCE SYS, ENERGY & ENVIRON SYS, & SUPPLY DISTRIBUTION & CONSTRUCTION EQUIPMENT SYS AREAS.

#### ...CURRENT IMPORTANT PROGRAMS

ENERGY & ENVIRONMENTAL SYSTEMS  
COUNTERSURVEILLANCE SYSTEMS  
FUEL & WATER SYS  
BARRIER/COUNTERBARRIER SYSTEMS  
MARINE & BRIDGE SYSTEMS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

ACCOMPLISH ROTE OF MATERIEL FOR MIL SYS OF BARRIERS, BRDNG & STRUCTURES COUNTERMINE, FIELD FORTIFICATIONS, CAMOUFLAGE, PHYSICAL SECURITY, TUNNEL DETECTION, TOPOGRAPHY(ENGRG ONLY), FUELS & LUBES, FUELS HNDLG EQUIP, ELEC POWER GENERATE & DISTRIB, ENVIRON CONTROL, WATER & WASTE MGT, MATERIALS HNDLG & SUPPLY DISTRIB, TRANSPORT-MARINE & RAIL EQUIP, AND CONSTRUCTION EQUIP. FAC INCL MINE FLD TEST LANES, SENSOR TEST AREA, ROU FREQ ANECHOIC CHAMBER, FLUID STRUKING TEST CHAMBER, FUELS & LOBE LAB, FIRE SUPPRESSION CHAMBER, CAMOUF EVAL & REF CTR, ELECTRIC PROPULSION SIM, BRIDGE TEST HANGER, MOB STRESS ANAL VAN, TRK STABILITY TILT TABLE, VEH TEST TRACKS, SHOCK & VIBRATION DYNAMIC SIM, ENVIRON SIM, MATERIALS RSCH LAB, CALIB & INSTRUMENTATION, EMI SIM, COMPT CTR, STILL & MOTION PIC SPT, RSCH & DEV MODEL FABRICATION SHOPS.

INSTALLATION: NATICK R&D COMMAND

NATICK, MA.

CDR. COL. R.J. CUTHBERTSON

ACTG. TECH. DIR. JAMES H. FLANAGAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	34.353	36.951
TOTAL PROCUREMENT	0.505	4.000
TOTAL U&M	12.212	11.107
TOTAL OTHER	5.021	5.053
TOTAL ANNUAL LAB	52.091	57.111
TOTAL INHOUSE	39.188	40.263
TOTAL INHOUSE RDT&E	23.722	25.585
ANNUAL OPERATING COST	7.571	6.974

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	104	7	28	76
CIVILIAN	1083	70	446	637
TOTAL	1187	77	474	713

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)
	LAB ADMIN OTHER TOTAL	REAL PROP EQUIP
2913	552.557 65.900 417.892 1036.319	27.33 18.857

...MISSION

CONDUCT SCIENTIFIC R&D TO SUSTAIN AND PROTECT MIL PERS UNDER ALL COND'TNS  
DESIGN AND DEVELOP FOOD & FOOD SERV SYS, PROT CLOTH&AIR&DROPP DELIV EQUIP  
ACCOMPLISH ITS FUNCTION IN ABOVE & EXECUTE FIRST PROD PROC & FIFOLDING OF  
NEW ARMY MANAGED ITEMS. PROV TECH & ENG SUPPORT TO PROD AGENCIES

...CURRENT IMPORTANT PROGRAMS

RADIATION PRESERVATION OF FOOD  
SUBSISTENCE TECHNOLOGY  
ANALYSIS AND DESIGN OF MILITARY FEEDING SYSTEMS  
CLOTHING AND EQUIPMENT TECHNOLOGY  
AIRDROP TECHNOLOGY

...FUNCTIONS/EQUIPMENT/CAPABILITIES

COBALT 60 IRRAD FACIL DESIGNED FOR MAX FLEXIBILITY IN FOOD PROCESS HIGH  
POWER LINEAR ACCELERATOR PILOT PLANT FOR FOOD AND FOOD PACKAGING BACTER  
IOLOGY LAB EQUIP FOR INVESTIGATION OF PATHOGENIC MICROORGANISMS HIGH  
RESOLUTION MASS SPECTROMETER FOR ANALYSIS OF VOLATILE COMPOUNDS FERETRON  
MACHINE USED AS A RAD SOURCE FOR PULSE RADIOLYSIS PILOT PLANT TO STUDY  
DATA ON CONVERTING CELLULOSE TO GLUCOSE ENZYMATICALY DYEING AND FINISH  
ING LAB FOR CONDUCTING STUDIES OF TEXTILES COMPUTER GENERATED SYS OF  
CLOTHING PATTERNS TO OUTPUT COMPLETE TARIFF OF SIZES FROM ONE MASTER  
CLIMATIC CHAMBERS TO TEST ITEMS AT TEMPS -57C TO 874C WITH WIND & RAIN  
FLAME PROTECTION LAB AND FACILITY INCLUDING AN OUTDOOR FLAME PIT  
UNIVAC 1106 COMPUTER WITH DISK PAC&STAPE DRIVES AND INPUT/OUTPUT EQUIP  
AIRCRAFT ROLLER CONVEYOR TEST FACILITY FIRE PYTS FOR TESTING MATERIALS

INSTALLATION: NIGHT VISION & ELECTRO OPTICS LABORATORY FT. BELVOIR, VA.

ACTG. DIR. MR. JOHN JOHNSON ASSOC. DIR. DR. LOUIS M. CAMERON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	37.276	39.565
TOTAL PROCUREMENT	211.807	165.646
TOTAL U&M	0.708	0.742
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	249.791	205.953
TOTAL INHOUSE	18.774	22.321
TOTAL INHOUSE RDT&E	13.895	19.018
ANNUAL OPERATING COST	2.103	2.103

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	32	0	7	25
CIVILIAN	459	29	203	256
TOTAL	491	29	210	281

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		REAL PROP	EQUIP
38	180.639	27.186	20.000	227.825	32.00	50.000

#### ...MISSION

N&EOL IS RESPONSIBLE FOR PROVIDING THE ARMY WITH A NIGHT VISION CAPABILITY THAT WILL ALLOW IT TO OPERATE WITH NEAR DAYLIGHT EFFICIENCY. THE SYSTEMS DEV PROGRAM IS STRUCTURED AROUND A STRONG TECHNOLOGY BASE WHICH CONSISTS OF FIR, ELECTRO-OPTICS, LASERS AND VISIONICS.

#### ...CURRENT IMPORTANT PROGRAMS

SECOND GENERATION THERMAL IMAGING  
SURVEILLANCE TARGET ACQUISITION RADAR FOR TANK LOCATION & ENGAGEMENT  
AVIATORS NIGHT VISION SYSTEM  
LOW COST NIGHT VISION AIDS  
ADVANCED LASER DEVICES

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR FACILITIES INCLUDE: NIGHT VISION SYSTEM LAB, IR DETECTOR FABR & ANALYSIS FACILITY, SURFACE RESEARCH FACILITY, FOCAL PLANE ARRAY TEST FACILITY, IR OPTICAL TEST FACILITY, IMAGE INTENSIFIER TUBE TESTING FACILITY, SEMI-CONDUCTOR MATERIALS RESEARCH FACILITY, ELECTRONICS TEST FACILITY, INTERACTIVE IMAGE PROCESSING FACILITY, LASER RANGES, 3-D MULTI SPECTRAL SEARCH SIMULATOR, SCIENTIFIC COMPUTER CENTER, FIRING TEST RANGE, AND E-O/IR IMAGE EVALUATION FACILITY.

INSTALLATION: RESEARCH INST FOR BEHAVIORAL & SOCIAL SCI WASHINGTON, D.C.

COR. COL. FRANKLIN A HART

TECH. DIR. DR. JOSEPH ZEIDNER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RD&E	24.129	28.161
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.000	0.000
TOTAL OTHER	0.687	0.738
TOTAL ANNUAL LAB	24.816	28.999
TOTAL INHOUSE	12.203	13.699
TOTAL INHOUSE RD&E	11.516	12.960
ANNUAL OPERATING COST	3.244	3.683

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	30	2	21	9
CIVILIAN	328	132	189	139
TOTAL	358	134	210	148

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
0	46.110	2.559	6.190	54.859	0.00	1.795

#### ...MISSION

TO MAXIMIZE COMBAT EFFECTIVENESS THROUGH RESEARCH  
IN THE ACQUISITION, DEVELOPMENT AND UTILIZATION  
OF SOLDIERS IN MILITARY SYSTEMS

#### ...CURRENT IMPORTANT PROGRAMS

PERFORMANCE ORIENTED SKILL DEVELOPMENT AND EVALUATION  
TRAINING TECHNOLOGY  
ON-THE-JOB TRAINING  
MANPOWER ACCESSION AND RETENTION SYSTEMS  
TECHNIQUES FOR ORGANIZATIONAL EFFECTIVENESS AND MANAGEMENT

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

NINE CONUS FIELD UNITS & ONE IN EUROPE, LIAISON OFFICES AT TRADOC, FORSCOM, & IN LONDON SUPPORT IN-HOUSE RESEARCH PROGRAM MANAGED BY 2 LABS WITHIN WHICH ARE 6 TECH AREAS, 1 PERSONNEL UTILIZATION, 2 TRAINING, 3 LEADERSHIP & MANAGEMENT, 4 SIMULATION SYSTEMS, 5 MANPOWER & EDUCATION SYSTEMS, 6 HUMAN FACTORS. CONUS FIELD UNITS ARE AT FTS BENNING, BLISS, KNOX, SILL, HOOD, LEAVENWORTH, RUCKER, BEN HARRISON, & PRESIDIO OF MONTEREY. IN-HOUSE EXPERIMENTAL FACILITIES INCLUDE LABORATORY AREA. ARMY-OWNED IN-HOUSE COMPUTERS PERMIT, WITHIN THE LABS, REAL-TIME EXPERIMENTATION, GAMING, & SIMULATION. ADDITIONAL TERMINAL LINES TO EXTERNAL COMPUTERS PROVIDE FLEXIBILITY. EXPR PROGRAM PERMITS A WIDE RANGE OF LAB OPTIONS TO TEST HUMAN PERFORMANCE HYPOTHESES UNDER SIMULATED OPERATIONAL CONDITIONS, INCL A COMMAND POST IN SIMULATED TACTICAL SITUATIONS.

INSTALLATION: RSCH INSTITUTE OF ENVIRONMENTAL MEDICINE

NATICK,MA.

CDR.COL. HARRY G. DANGERFIELD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	3.935	4.148
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.968	1.019
TOTAL ANNUAL LAB	4.903	5.167
TOTAL INHOUSE	4.903	5.167
TOTAL INHOUSE RDT&E	3.935	4.148
ANNUAL OPERATING COST	0.888	0.950

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	TOTAL	
MILITARY	81	9	40	41	
CIVILIAN	94	18	44	50	
TOTAL	175	27	84	91	

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL REAL PROP	EQUIP
4	60.421	18.563	28.647	107.631	3.71	3.825

#### ...MISSION

TO CONDUCT BASIC AND APPLIED RESEARCH TO DETERMINE THE EFFECTS OF HEAT, COLD, HIGH TERRESTRIAL ALTITUDE AND WORK UPON THE SOLDIERS' LIFE PROCESSES PERFORMANCE AND HEALTH. THE GOAL IS TO UNDERSTAND THE COMPLEX INTERACTION OF ENVIRONMENTAL STRESSES WITH THE BODY'S DEFENSE MECHANISMS AND TECH.

#### ...CURRENT IMPORTANT PROGRAMS

IMPROVEMENT OF PHYSICAL FITNESS TRAINING AND PREVENTION OF INJ REL TO TG PHYSICAL FITNESS REQUIREMENTS, EVALUATION, AND JOB PERF IN THE US ARMY PREDICTION OF THE BIOLOGICAL LIMITS OF MILITARY PERF AS A FUNCT OF ENVIR BIOLOGICAL PROCESSES THAT LIMIT HEAVY PHYSICAL WORK ABILITY OF THE SOLDI PREVENTION AND TREATMENT OF DISABILITIES ASSOCIATED WITH MIL OPERATIONS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT RESEARCH AND PROVIDE GUIDANCE TO DESIGNERS, ENGINEERS, TACTICIANS, PLANNERS AND PHYSICIANS ON MILITARY PERFORMANCE AND CASUALTY PREVENTION AND TREATMENT IN EXTREME CLIMATES AND ENGINEERED ENVIRONMENTS; ADVISE ON HEALTH AND SAFETY IN MANEUVERS DURING HEAT, COLD, OR HYPOXIC STRESS AND RAPID AIR TRANSLOCATION. IN HUMAN AND ANIMAL RESEARCH USE APPROXIMATE 180 VOLUNTEER TEST SUBJECTS, AND CLIMATIC CHAMBERS OF USANARADCOM. IN ADDITION, APPROXIMATELY 475 OTHER HUMAN TEST SUBJECTS WERE UTILIZED AT VARIOUS LOCATIONS THROUGHOUT CONUS. THE MAJOR EQUIPMENT AND FACILITY CAPABILITIES OF THE LABORATORY INCLUDE, BUT ARE NOT LIMITED TO, MANY SMALL CHAMBERS, ANIMAL CARE FACILITIES, ELECTRON MICROSCOPE, UNDERWATER RESEARCH POOL, COOPER MANIKINS AND DIVERSE PHARMACOLOGICAL AND PSYCHOLOGICAL MEASUREMENT. THE INSTITUTE MAINTAINS A FIELD FACILITY AT PIKES PEAK, CO.



INSTALLATION: SIGNALS WARFARE LABORATORY

VINT HILL, VA

DIR HERBERT S. HOVEY, JR.

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	11.087	14.067
TOTAL PROCUREMENT	91.400	62.200
TOTAL U&M	2.170	2.897
TOTAL UTHER	20.296	17.331
TOTAL ANNUAL LAB	124.953	96.495
TOTAL INHOUSE	5.656	6.022
TOTAL INHOUSE ROT&E	1.730	1.40
ANNUAL OPERATING COST	2.286	2.305

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	69	0	29	40
CIVILIAN	168	5	51	117
TOTAL	237	5	80	157

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	UTHER	TOTAL	REAL PROP	EQUIP
10	3.936	32.101	3.963	40.000	2.00	9.980

...MISSION

RESEARCH, DESIGN, DEVELOPMENT, EVALUATION, ANALYSIS, LOGISTICAL INTEGRATION, FIRST ARTICLE PRODUCTION, SUCCESSFUL FIELDING AND PRODUCT IMPROVEMENT OF SIGNALS. INTELL/ELECTRONIC WARFARE SYS AND THE DESIGN OF SIGNAL SECURITY DEVICES AND TECH TO MEET ARMY AND DIRECTED NATIONAL REQMTS.

...CURRENT IMPORTANT PROGRAMS

AN/MLQ-33, CLOSE AIR SUPPORT ECM  
AN/MLQ-34, TAC JAM  
EXPENDABLE JAMMERS  
AN/ALQ-151, QUICK FIX  
AREA SUPPORT RADAR JAMMERS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE US ARMY SIGNALS WARFARE LABORATORY IS LOCATED AT VINT HILL FARMS STATION, WARRENTON, VIRGINIA, IN A FACILITY UNIQUELY SUITED TO MISSION. THE LABORATORY CONSISTS OF APPROXIMATELY 4000 SQUARE FEET WITH A COMPUTERIZED SIGNAL PROCESSING FACILITY (CONSISTING OF A CPU, RECORDERS, ANAL) FOR SYS SOFTWARE VERIFICATION AND VALIDATION, R&D SOFTWARE DEV AND SUP ARE USED FOR DESIGN AND TEST OF EQUIP IN A REAL TIME ENVIRONMENT. THE LAB IS STAFFED WITH ELECTRONIC ENGINEERS AND TECH, SIGNALS ANALYSTS, OPERATION RESEARCH ANALYSTS, INTEGRATED LOGISTIC SUPPORT PERSONNEL, PRODUCT AND QUALITY ASSURANCE TECHNICIANS, AND PRODUCTION ENGINEERS TO PROVIDE FOR TECHNICALLY SOUND, MILITARIZED AND FULLY SUPPORTABLE AND INTER/INTRA-OPERABLE COMMUNICATIONS AND ELECTRONICS SYSTEM AND EQUIPMENT.

INSTALLATION: TANK-AUTO R & D COMMAND

WARREN, MI.

CDR. BG. A. H. ANDERSON

TECH. DIR. DR. F. N. PETRICK

PROGRAM	PROGRAM DATA FY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	65.371	80.041
TOTAL PROCUREMENT	97.998	63.733
TOTAL U&M	7.039	9.898
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	170.408	153.672
TOTAL INHOUSE	23.952	28.944
TOTAL INHOUSE RDT&E	13.448	17.993
ANNUAL OPERATING COST	4.298	3.945

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	40	3	38		2
CIVILIAN	795	15	342		453
TOTAL	835	18	380		455

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP	
	LAB	ADMIN	OTHER				
11	140.319	99.947	0.000	240.266	38.29	135.000	

#### ...MISSION

RESPONSIBLE FOR ACCOMPLISHING DESIGN, DEVELOPMENT, ACQUISITION AND INITIAL DEPLOYMENT OF ASSIGNED WEAPONS/EQUIP SYSTEMS. CONDUCT AND MANAGE RESEARCH, PERFORM PROCUREMENT AND QUALITY ASSURANCE THRU DEVELOPMENT. PERFORM RELIABILITY-MAINTAINABILITY ASSESSMENT

#### ...CURRENT IMPORTANT PROGRAMS

HOLOGRAPHIC INTERFEROMETRY TECHNIQUES TO TEST TANK-AUTO COMP  
ACOUSTIC DETECTION OF HELICOPTER FROM AIR DEFENSE VEHICLES  
COUNTERMEAS AGAINST INFRARED AND RADAR ANTI-TANK GUIDED MISSILE THREATS  
TOTAL ANALYTICAL BALLISTIC PROCEDURE APPLIED TO COMBAT VEHICLE SYSTEM  
TANK SCIENCE AND TECHNOLOGY PLAN

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

VEHICLE BRAKE DYNAMOMETER; ENGINE AND TRANSMISSION TEST CELLS  
VEHICLE SUBSYSTEM INTEGRATION; VEHICLE MOTION SIMULATOR  
ANALYTICAL PREDICTION OF MILITARY VEHICLE PERFORMANCE  
VEHICLE SIGNATURE MEASUREMENT CAPABILITY  
SIX DEGREE OF FREEDOM SIMULATOR  
VEHICLE COMPONENT EVALUATION  
SIX DEGREE OF FREEDOM SIMULATOR  
METAL ANAL W/MICROPROBE ELECTRON MICROSCOPE ANALYZER AND TECHNIQUES  
DEVELOPMENT OF IMPROVED ARMOR WELDING, FABRICATION AND APPLIC TECHNIQUES  
LOW TEMPERATURE SHOCK AND VIBRATION TEST FACILITIES  
VEHICLE DYNAMIC SIMULATION FACILITY; IMAGE PROCESSING CAPABILITY  
HOLOGRAPHIC CAPABILITY FOR LARGE STRUCTURES

INSTALLATION: TROPIC TEST CENTER

FT. CLAYTON, C.Z.

CDR. COL. RICHARD P. BARRERE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	2.807	3.107
TOTAL PROCUREMENT	0.027	0.001
TOTAL DEM	0.005	0.001
TOTAL OTHER	1.194	1.724
TOTAL ANNUAL LAB	4.033	4.833
TOTAL INHOUSE	3.822	4.124
TOTAL INHOUSE RDT&E	2.616	2.911
ANNUAL OPERATING COST	0.392	0.418

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	TOTAL	
MILITARY	80	0	4		76
CIVILIAN	61	1	9		52
TOTAL	141	1	13		128

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
2625	20.510	35.925	94.858	146.293	1.06	2.384

### ...MISSION

PLAN-CONDUCT AND REPORT ON ENVIRONMENTAL PHASES OF DEVELOPMENT TEST 11, AND OTHER DEVELOPMENTAL TYPE TESTS. PROVIDE ADVICE AND GUIDANCE ON TESTS AND EVALUATION MATTERS TO MATERIALS DEVELOPERS, MATERIEL PRODUCERS, OTHER SERVICES, AND PRIVATE INDUSTRY

### ...CURRENT IMPORTANT PROGRAMS

DEMOLITION KIT BLASTING  
BLACKHAWK  
FIRING DEVICE DEMO, XM122  
INDEPENDENT LABORATORY IN-HOUSE RESEARCH (ULTRA-VIOLET)  
TEST METHOD LOGY AND RESEARCH AND DEVELOPMENT INSTRUMENTATION PROGRAM

### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST FACILITIES AND LABORATORIES WITH INSTRUMENT AND EQUIPMENT FOR CONDUCTING TROPIC TESTS OF DOD MATERIEL IN THE NATURAL ENVIRONMENT INCLUDE EL CTRONICS, HUMAN FACTORS, CHEMICAL, MICROBIOLOGICAL, MATERIALS, SOILS, CALIBRATION, AUDIO-VISUAL AND DATA ANALYSIS LABORATORIES. OTHER TEST RESOURCES CONSIST OF FIRING RANGE, NATURAL TERRAIN MOBILITY COURSES, AMMO TEST STORAGE AND FUNCTIONING AREAS, JUNGLE GRASS AND COASTAL AND OTHER DEVELOPMENTAL TYPE TESTS. PROVIDE ADVICE AND GUIDANCE ON TESTS PACK PORTABILITY COURSE, CALIBRATED SEISMIC DETECTION AND CHEMICAL TEST GRIDS AND 2,500 ACRES OF BROADLEAF EVERGREEN TREES, SEMI-DECIDUOUS TREES, MARSHLAND, GRASSLAND, CORAL REEFS, FLAT AND HILLY TERRAIN AND ALL TYPES OF TROPIC VEGETATION.

INSTALLATION: WALTER REED ARMY INSTITUTE OF RESEARCH

WASHINGTON, D.C.

CDR. COL. PHILIP K. RUSSELL

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	18.954	19.409
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	1.301	1.651
TOTAL OTHER	7.316	7.699
TOTAL ANNUAL LAB	27.571	28.759
TOTAL INHOUSE	27.571	28.759
TOTAL INHOUSE RDT&E	18.954	19.409
ANNUAL OPERATING COST	1.749	2.169

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	473	153	327	146
CIVILIAN	440	63	166	274
TOTAL	913	216	493	420

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
203	382.974	58.360	0.000	441.334	10.08	17.609

#### ...MISSION

PERFORMS GENERAL MILITARY MEDICINE RESEARCH IN THE AREAS OF COMMUNICABLE DISEASE AND IMMUNOLOGY, SURGERY, EXPERIMENTAL THERAPEUTICS, NEUROPSYCHIATRY GENERAL MEDICINE, AND PREVENTIVE MEDICINE. SERVE AS COMMAND AND CONTROL ELEMENT FOR THE SPECIAL FOREIGN ACTIVITIES. PLAN AND CONDUCT AMEDD COURSE

#### ...CURRENT IMPORTANT PROGRAMS

BASIC RESEARCH ON MILITARY DISEASES  
MILITARY PSYCHIATRY  
MICROWAVE INJURY, PREVENTION AND TREATMENT  
MILITARY PREVENTIVE MEDICINE AND TROPICAL DISEASE  
DRUG DEVELOPMENT FOR CHEMICAL DEFENSE

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAJOR EQUIPMENT AND FACILITY CAPABILITY OF THE LAB INCLUDES CHEMICAL ANALYTICAL EQUIPMENT, MICROWAVE EXPOSURE SYSTEMS, BEHAVIORAL RESEARCH INSTRUMENTATION AND ELECTRON MICROSCOPES. ADDITIONAL RESEARCH FACILITIES ARE LOCATED IN GERMANY, KENYA, MALAYSIA, BRAZIL, THAILAND AND MARYLAND.

INSTALLATION: WHITE SANDS MISSILE RANGE

WHITE SANDS, N.M.

CDR. MG. D. BALL

TECH. DIR. DR. RICHARD H. DUNCAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	135.495	138.611
TOTAL PROCUREMENT	12.894	16.597
TOTAL U&M	5.409	5.250
TOTAL OTHER	13.497	56.095
TOTAL ANNUAL LAB	167.295	216.553
TOTAL INHOUSE	144.020	149.432
TOTAL INHOUSE RDT&E	112.982	115.412
ANNUAL OPERATING COST	36.037	37.880

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PRDF	
MILITARY	922	1	402	520
CIVILIAN	2750	46	1024	1726
TOTAL	3672	47	1426	2246

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL REAL PROP	COST (MILLION \$) EQUIP
	LAB	ADMIN	OTHER		
4214377	1408.724	469.828	3007.638	4886.195	185.19 180.584

#### ...MISSION

OPERATE A NATIONAL MISSILE RANGE FOR SUPPORT OF ALL APPROVED MISSILE AND RELATED TEST PROGRAMS. INDEPENDENTLY TEST AND EVALUATE ARMY MISSILE AND ROCKET SYSTEMS. ENGINEER AND DEVELOP RANGE INSTRUMENTATION SYSTEMS FOR GATHERING TEST DATA.

#### ...CURRENT IMPORTANT PROGRAMS

SECURE TELEMETRY  
HIGH ENERGY LASER INSTRUMENTATION  
HIGH INTENSITY SOLAR THERMAL FACILITY DESIGN  
RADAR 85 (AIRSPACE SURVEILLANCE)  
PROJECTILE MOTION DETERMINATION

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

INSURE GROUND AND FLIGHT SAFETY. OBTAIN FLIGHT TRAJECTORY AND EVENT DATA. RECOVER MISSILES OR PORTIONS THEREOF. REDUCE AND PREPARE DATA COLLECTED BY RANGE INSTRUMENTS FOR RANGE USERS. ENGINEER AND DEVELOP RANGE INSTRUMENTATION. INDEPENDENTLY TEST AND EVALUATE ARMY WEAPONS SYSTEMS. EVALUATE GUIDANCE AND CONTROL SYSTEMS, STRUCTURAL INTEGRITY, PROPULSION SYSTEMS, AND ELECTROMAGNETIC RADIATION EFFECTS. ANALYZE CHEMICAL, METALLOGRAPHIC, MICROBIOLOGICAL, AND CLIMATIC-ENVIRONMENTAL EFFECTS. TEST AND EVALUATE WARHEADS AND SPECIAL WEAPONS. SIMULATE WEAPONS SYSTEMS. TEST AND ANALYZE NUCLEAR EFFECTS. TEST COUNTER-COUNTER MEASURES. PROVIDE TEST DATA ON MISSILES AND RELATED PROGRAMS UTILIZING ELECTRONIC AND OPTICAL TRACKING SENSORS AND DATA TRANSMISSION. TEST UTILIZING SOLAR FURNACE.

INSTALLATION: YUMA PROVING GROUND

YUMA, AZ

COR. COL. JAMES M. DAVIS, JR. TECH. DIR. RICHARD H. MILLER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	38.333	32.983
TOTAL PROCUREMENT	1.226	0.300
TOTAL U&M	0.612	0.326
TOTAL OTHER	5.052	9.463
TOTAL ANNUAL LAB	45.223	43.072
TOTAL INHOUSE	45.223	38.772
TOTAL INHOUSE RDT&E	38.333	32.983
ANNUAL OPERATING COST	9.046	9.794

PERSONNEL	PERSONNEL DATA (END OF FY 1979)		TOTAL PRUF	NON- PRUF
	AUTHORIZED STRENGTH	TOTAL PHDS		
MILITARY	383	6	41	342
CIVILIAN	603	0	78	525
TOTAL	986	6	119	867

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
870309	0.832	112.690	1294.937	1408.459	46.99	60.726

#### ...MISSION

PLAN, CONDUCT, SPT DT AIR DEL EQ, L-RNGE TUBE ARTY, ACFT WPNS SYS, MOB EQUIP. PLAN, CONDUCT, RPT DESERT TEST. PROVIDE TEST, EVAL ADVICE, GUIDANCE TO PROSPECTIVE FACILITY USERS. DEVELOP, MAINTAIN MASTER PLAN FOR INSTALLATION, FACILITIES, METHODOLOGY.

#### ...CURRENT IMPORTANT PROGRAMS

GLOBAL POSITIONING SYSTEM  
ADVANCED ATTACK HELICOPTER  
IMPROVED TOW VEHICLE  
ENHANCED CUBRA ARMAMENT PROGRAM  
PROJECTILE 8-INCH XM753

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

INSTRUMENTED ARTILLERY RANGE  
VEHICLE MOBILITY TEST RANGES AND FACILITY  
INSTRUMENTED AIRCRAFT ARMAMENT RANGE  
REAL TIME CINETHODULITE SYSTEM  
LASER RANGE TRACKER  
POSITION LOCATING DATA COMMUNICATION SYSTEM  
INSTRUMENTED DROP ZONES  
ENGINEERING TEST FACILITY  
INSTRUMENTATION CALIBRATION FACILITY  
SCIENTIFIC COMPUTER CENTER  
ENVIRONMENTAL TEST FACILITIES  
WEAPONS EVALUATION FACILITY

INSTALLATION: AEROSPACE MEDICAL RESEARCH LABORATORY

PENSACOLA, FL.

CO. CAPT. R. E. MITCHELL

TECH. ADV. DR. A. GRAHIEL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	5.662	5.962
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.273	0.200
TOTAL OTHER	0.840	0.899
TOTAL ANNUAL LAB	6.775	7.061
TOTAL INHOUSE	5.212	5.591
TOTAL INHOUSE RDT&E	4.113	4.507
ANNUAL OPERATING COST	1.139	1.245

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHOS	TOTAL PROF	NON- PROF
MILITARY	51	20	26	25
CIVILIAN	118	19	50	68
TOTAL	169	39	76	93

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6	172.546	11.768	6.400	190.714	3.13	4.033

...MISSION

CONDUCT RESEARCH DEVELOPMENT TEST AND EVALUATION IN AEROSPACE MEDICINE AND RELATED SCIENTIFIC AREAS APPLICABLE TO AEROSPACE SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

PHYSIOLOGICAL AND BEHAVIORAL EFFECTS OF NONIONIZING RADIATION  
HUMAN DYNAMIC RESPONSE TO IMPACT ACCELERATION AND VIBRATION  
AVIATION PERSONNEL SELECTION PSYCHOMOTOR TEST DEVELOPMENT  
CREW PERFORMANCE IN NAVAL MOTION ENVIRONMENTS.  
AVIATION VISUAL PERFORMANCE REQUIREMENTS AND CAPABILITIES

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MICROWAVE AND EXTREMELY LOW FREQUENCY NONIONIZING RADIATION FACILITY.  
SLOW ROTATION ROOM. CORIOLIS ACCELERATION PLATFORM. HUMAN DISORIENTATION  
DEVICE. STILL-WERNER CHAIR. OFF VERTICAL ROTATING CHAIR. ANACHOIC AND  
REVERBERANT CHAMBERS. AUTOMATED PULMONARY FUNCTION. TREADMILL. VECTOR  
AND ECHOCARDIOGRAPH. THERMOGRAPHIC IMAGING SYSTEM. 3D BINOCULAR EYE-  
TRACKER AND VISUAL STIMULATOR ELECTRON MICROSCOPE. IMPACT FACILITY  
1 MEGA N THRUST ACCELERATOR. 213 M ENVIRONMENTALLY ENCLOSED TRACK. 17.8K  
N THRUST VERTICAL ACCELERATOR X-RAY CINEMATOGRAPHY. ELECTRODYNAMIC  
MOTION EXCITORS. C210 SHAKER. SHIP MOTION GENERATOR. 22 CHANNEL INERTIAL  
DATA ACQUISITION SYSTEMS HIGH SPEED CAMERAS VIVARIUM WITH OPERATING  
SUITE. EQUIPPED FOR HUMAN AND ANIMAL EXPERIMENTS IN UNUSUAL FORCE ATMOS  
PHERIC ACOUSTICAL ELECTROMAGNETIC ENVIRONMENTS.

INSTALLATION: AIR DEVELOPMENT CENTER

JOHNSVILLE, PA.

CO. CDR. P. DUDLEY

TECH.DIR. DR.R.K. LORB

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	127.081	133.095
TOTAL PROCUREMENT	28.562	30.713
TOTAL O&M	13.999	18.241
TOTAL OTHER	11.554	13.625
TOTAL ANNUAL LAB	181.196	195.674
TOTAL INHOUSE	89.336	89.620
TOTAL INHOUSE RDT&E	61.190	58.921
ANNUAL OPERATING COST	29.545	33.609

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	290	4	86	204
CIVILIAN	2109	27	1085	1024
TOTAL	2399	31	1171	1228

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
840	825.000	83.000	654.000	1562.000	33.00	51.754

...MISSION

TO BE THE PRINCIPAL NAVY RDT&E CENTER FOR NAVAL AIRCRAFT SYSTEMS  
LESS AIRCRAFT LAUNCHED WEAPON SYSTEMS

...CURRENT IMPORTANT PROGRAMS

CARRIER ANTI-SUBMARINE WARFARE MODULE  
S-3A, F-14, F-18, VP PROGRAM  
LIGHT AIRBORNE MULTI-PURPOSE SYSTEMS  
V/STOL  
J-TIDS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AIRCRAFT SYSTEMS SIMULATION, AIRBORNE SEARCH & RESCUE, INERTIAL  
NAVIGATION TECHNOLOGY, AIR VEHICLE TECHNOLOGY STRUCTURES, MATERIALS,  
FLIGHT DYNAMICS, PERFORMANCE, FLIGHT CONTROL, AIRBORNE ASW SYSTEMS.  
DEVELOP & INTEGRATION OF AIRBORNE SYSTEMS INCLUDING ELECTRONIC  
SURVEILLANCE & COUNTER MEASURES, COMMUNICATIONS, NAVIGATION INFORMATION  
PROCESSING & DISPLAY, ENVIRONMENTAL SENSING, ELECTROMAGNETIC/MAGNETIC,  
ACOUSTIC, ELECTRO-OPTIC, & PHOTOGRAPHIC, A/C SUPPORT SYSTEMS, A/C COST  
METHODOLOGY AND LOGISTICS, AEROSPACE MEDICINE AND AVIATION PHYSIOLOGY  
AND SUPPORT TO OTHER ACTIVITIES AS DIRECTED



INSTALLATION: AIR PROPULSION CENTER

TRENTON, N.J.

CO. CAPT. B. F. ALLGOOD, JR. TECH. CONSUL. MR. R.T. MCWILLIAMS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	24.458	34.133
TOTAL PROCUREMENT	2.771	3.399
TOTAL O&M	0.215	0.060
TOTAL OTHER	1.183	1.271
TOTAL ANNUAL LAB	28.627	38.963
TOTAL INHOUSE	21.044	23.770
TOTAL INHOUSE ROT&E	12.304	19.647
ANNUAL OPERATING COST	6.538	7.511

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	8	0	8		0
CIVILIAN	387	0	155		432
TOTAL	595	0	163		432

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	UTHER			
68	376.704	37.973	211.766	626.443	50.97	11.516

#### ...MISSION

PROVIDE NAVAIR & FLEET COMPLETE TECHNICAL & ENGINEERING SUPPORT FOR AIR-BREATHING PROPULSION SYSTEMS; ACCESSORIES, COMPONENTS AND FUELS & LUBE; MANAGE AND PERFORM APPLIED R&D ON NEW PROPULSION SYSTEMS, EVALUATE NEW SYSTEMS. BY T&E ASSURE MISSION ACCOMPLISHMENT AND SOLVE FLEET PROBLEMS.

#### ...CURRENT IMPORTANT PROGRAMS

CRUISE MISSILE ENGINE (F107) DEVELOPMENT & QUALIFICATION TESTING  
 F404-GE-400 ENGINE DEVELOPMENT & QUALIFICATION TESTING  
 TF30-P414/414A ENGINE STABILITY & PERFORMANCE EVALUATION  
 TF30-P-414A ENGINE BASELINE PERFORMANCE/SHALF-OIL FUEL TEST  
 TF700-GE-401 ENGINE CORROSION SUSCEPTIBILITY TEST

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

THREE LARGE ALTITUDE CELLS, TWO LARGE SEA LEVEL CELLS AND FOUR SMALL ALTITUDE CELLS PROVIDE ENVIRONMENTAL AND FLIGHT SIMULATION CAPABILITY OF SEA LEVEL TO 10000 FEET; MINUS 65 TO PLUS 650 DEGREES F, FLIGHT SPEEDS FROM ZERO TO MACH 3 TO TEST TURBOJET/FAN AND TURBOPROP/SHAFT ENGINES. SEVEN TEST ROOMS TEST STARTERS, ACCESSORIES AND AUXILIARY POWER UNITS. EIGHT TEST ROOMS AND CHEMISTRY LAB USED FOR R&D ON FUELS, LUBES AND BEARINGS. SPECIAL TEST FACILITIES ARE ROTOR SPIN FACILITY, HELICOPTER TRANSMISSION STAND, GYRO RIG, ENGINE TURNTABLE AND DEMISTER TEST CELL. FACILITIES ARE USED FOR R&D ON ADVANCED FUELS AND LUBRICATING OILS, OIL-WETTED ENGINE COMPONENTS, AIR POLLUTION, LOW CYCLE FATIGUE, CONTAINMENT, NOISE AND I/R PROGRAMS, NACP QUALS OILS. MANAGES NAVY EXPLORATORY AND ADV DEVEL PRGMS, PROVIDES ADMN & TECH DIR TO SELECTED NAVAIR CONTRACTS.

INSTALLATION: AIR TEST CENTER

PATUXENT RIVER, MD.

CO. RAUM J.G. WISSLER

TECH.DIR.MR.JOHN B. PARADIS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	68.311	81.450
TOTAL PROCUREMENT	16.919	13.414
TOTAL O&M	12.297	13.730
TOTAL UTHER	25.713	24.684
TOTAL ANNUAL LAB	123.240	133.278
TOTAL INHOUSE	97.914	97.296
TOTAL INHOUSE RDT&E	50.801	54.740
ANNUAL OPERATING COST	52.652	58.917

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1565	3	193	1372
CIVILIAN	2001	9	351	1650
TOTAL	3566	12	544	3022

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)
	LAB ADMIN OTHER TOTAL	REAL PROP EQUIP
7106	951.106 363.500 3501.167 4815.773	161.41 23.521

...MISSION

MISSION-CONDUCT TECH EVALS & BIS TRIALS, TRAIN TEST PILOTS, TEST&EVALUATE TOTAL A/C, THEIR MISSION SYSTEMS & ALL SUBSYSTEMS & COMPONENTS, RELATED SUPPORT SYSTEMS & ILS. PROVIDE TECH ADVICE & ASSISTANCE TO NASC & OTHERS TO TRAIN TEST PILOTS & TO DEVELOP A/C TESTING TECHNOLOGY.

...CURRENT IMPORTANT PROGRAMS

PRINCIPAL SITE FOR FULL SCALE DEVELOPMENT, TEST&EVALUATION, AND BIS TRIALS OF ALL NAVY/MARINE A/C SUCH AS F14, F18, A4, A6, A7, EA6, AV8, LAMPS, P3, FP3E, E2 EC130, AH1, UH1, CH53, SH2, SH3, PLUS THEIR ASSOCIATED SIMULATORS, GROUND SUPPORT EQUIP, A/C COMPUTERS&SOFTWARE, RELIABILITY, MAINTAINABILITY, HUMAN FACTORS, ELEC WARFARE, ACLS, MLS, & CARRIER&AIRFIELD CERTIFICATIONS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE LARGE RESTRICTED AIRSPACE, REAL-TIME RANGE&A/C TEST DATA PROCESSING, COMPUTER&SOFTWARE T&E LABS, CATAPULTS, ARRESTING GEARS, ACLS SITES, ELECTROMAGNETIC SHIELDED HANGAR, GUN FIRING TUNNELS, ENVIRONMENTAL TESTING FACILITIES, ELECTRICAL POWER&CONTROL TESTING LABS, INSTRUMENTED SONIBUOY RANGE, ASW SYSTEMS LABS, BIOMEDICAL&HUMAN FACTORS LABS, EXTENSIVE INSTRUMENTATION DESIGN&CONSTRUCTION FACILITIES, WATER EDGE LOW ELECTRO-MAGNETIC NOISE TEST AREA, ELECTRO-OPTICAL TARGETS&TEST RANGE, ENGINE TEST CELL & THRUST STAND, BROADBAND EW TEST RANGE, VSTOL TEST SITE, SURFACE EFFECT SHIP TEST FACILITY.

INSTALLATION: ARCTIC RESEARCH LABORATORY

BARRROW, AK.

CO. LCDR. MICHAEL BROWN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	8.841	6.517
TOTAL PROCUREMENT	0.000	0.000
TOTAL OEM	0.060	0.173
TOTAL OTHER	1.475	1.879
TOTAL ANNUAL LAB	10.376	8.569
TOTAL INHOUSE	0.056	0.056
TOTAL INHOUSE RDT&E	0.000	0.000
ANNUAL OPERATING COST	5.742	6.117

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	3	0	2	1
CIVILIAN	0	0	0	0
TOTAL	3	0	2	1

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
4987	47.310	15.987	368.049	431.346	13.15	1.675

#### ...MISSION

PROVIDE FACILITIES AND SERVICES FOR ACCOMPLISHING PROGRAMS OF BASIC AND APPLIED RESEARCH WHICH CONTRIBUTE TO SUCCESSFUL NAVY OPERATIONS IN THE ARCTIC REGIONS AND ENVIRONMENT.

#### ...CURRENT IMPORTANT PROGRAMS

STUDY PHYSICAL PROPERTIES, OPTICAL CHARACTERISTICS AND CHEMICAL COMPOSITION OF ARCTIC AEROSOLS.

CONSTRUCT SEDIMENT DISTRIBUTION CHART OF THE ARCTIC BASIN

DEVELOP RELATIONSHIPS BETWEEN ICE, AIR AND WATER OF THE ARCTIC OCEAN.

STUDY THE PHYSICAL OCEANOGRAPHY OF THE BARENTS AND KARA SEAS.

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

THE FACILITY CONSISTS OF 116 SEMI-PERMANENT BUILDINGS (TO BE REDUCED BY 50 BLDGS BY FY80) INCLUDING A LABORATORY-ADMINISTRATION-BILLETING BLDG WHICH HAS 43 LABORATORY SPACES, SLEEPING QUARTERS FOR 100 PEOPLE, ADMIN OFFICES, GYM ROOM, MUSEUM OF ARCTIC FAUNA AND ARCHEOLOGY AND A LIBRARY OF POLAR ORIENTED PUBLICATIONS. THE LAB PROVIDES FACILITIES MAINTENANCE, UTILITY GENERATION AND DISTRIBUTION, MOTOR VEHICLE OPERATIONS AND MAINTENANCE, FIRE PROTECTION AND SECURITY, JANITORIAL SERVICE, COMMUNICATIONS, AIRPORT OPERATION, MEDICAL SUPPORT, FOOD SERVICES, AND PROVISION OF SPECIAL SERVICES, INCLUDING LAUNDRY, RECREATION AND RESALE ACTIVITIES. THE LABS CAPABILITY INCLUDES LIMITED SUPPORT OF MILITARY OPERATIONS IN THE ARCTIC INCLUDING SEARCH AND RESCUE.

INSTALLATION: ATLANTIC FLEET WEAPONS TRAINING FACILITY ROOSEVELT ROAD, P.R.

CO. CAPT. R. M. BROWN

TECH. DIR. MR. THOMAS RAMIREZ

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	3.239	0.209
TOTAL PROCUREMENT	4.791	4.711
TOTAL O&M	11.078	11.941
TOTAL OTHER	1.935	2.034
TOTAL ANNUAL LAB	18.043	18.895
TOTAL INHOUSE	3.801	3.762
TOTAL INHOUSE RDT&E	0.202	0.177
ANNUAL OPERATING COST	1.092	0.979

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	100	0	30	70
CIVILIAN	34	0	19	15
TOTAL	134	0	49	85

ACRES	SPACE AND PROPERTY (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
3602	0.000	14.957	154.005	168.962	10.90	96.798

#### ...MISSION

TO OPERATE, MAINTAIN AND DEVELOP WEAPONS TRAINING FACILITIES AND SERVICES IN DIRECT SUPPORT OF THE TRAINING OF FLEET FORCES AND OTHER ACTIVITIES, AND FOR THE DEVELOPMENT, TEST AND EVALUATION OF WEAPONS SYSTEMS.

#### ...CURRENT IMPORTANT PROGRAMS

MOBILE SEA RANGE DEVELOPMENT SUPPORT  
AN/SMS-56 SONAR TESTING  
CNO111-UT-48 SLQ 32 TESTING  
CNO111-UT-48 SLQ 32 TESTING  
FFG-7 TRIALS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

NAVY'S LARGEST TRAINING FAC. FOR ATLANTIC FORCES WITH 202,000 SQ. MI. COMBINED SEA AREA FOR AIR, SURFACE AND SUBSURFACE WARFARE OPERATIONS, CENTRAL COMMAND AND CONTROL SYSTEM WITH NTDS LINKING, REALISTIC EW ENVIRONMENT, SURVEILLANCE/TRACK RADARS, AIR/SURFACE TARGET PRESENTATION, LARGE SCREEN DISPLAY SYSTEM FOR OPS MONITOR/CONTROL, EVENT RECONSTRUCTION, AND VARIOUS INSTRUMENTATION SYSTEMS BASED AROUND A UNIVAC 1230 COMPUTER SYSTEM WITH A EXTENDED CORE MEMORY UNIT. FLTAC FIELD STATION FOR MISSILE ANALYSIS AND EVALUATION. AIR TO GROUND AND SURFACE TO SURFACE WEAPONS TARGET FACILITIES FOR CONVENTIONAL AIRCRAFT ORDNANCE DELIVERY, STRAFING AND NAVAL GUNFIRE WITH RADAR, TV BOMB SCORING SYSTEM AND OTHER SCORING/SPUTTING SYSTEMS. UNDERWATER RANGE FOR PRECISION SURFACE AND SUBSURFACE TRACKING, WSATS AND FORACS. NAVSTA PROVIDES FOR AIRCRAFT/SHIPS LOGISTIC SUPPORT, BOQ AND BEQ.

INSTALLATION: BIOSCIENCES LABORATORY

OAKLAND, CA.

CO. CAPT. J. F. PRIBNOW

SCI. DIR. DR. N. A. VEDROS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	2.246	2.319
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.000	0.000
TOTAL OTHER	1.117	0.912
TOTAL ANNUAL LAB	3.563	3.231
TOTAL INHOUSE	0.895	0.830
TOTAL INHOUSE RDT&E	0.591	0.431
ANNUAL OPERATING COST	0.697	0.622

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	9	2	5	4
CIVILIAN	6	0	0	6
TOTAL	15	2	5	10

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
5	77.625	8.731	34.646	121.002	1.00	5.400

#### ...MISSION

THE MISSION OF THE BIOSCIENCES LABORATORY IS TO CONDUCT RESEARCH AND DEVELOPMENT IN THE BIOSCIENCES RELATED TO THE NEEDS OF THE NAVAL ESTABLISHMENT.

#### ...CURRENT IMPORTANT PROGRAMS

STUDY THE EFFECT OF ENERGY CONSERVATION MEASURES ON AIR HYGIENE  
CONTROL FOULING OF OPTICAL SURFACES IN A MARINE ENVIRONMENT  
ASSESS THE BIOHAZARD RISK OF LABORATORY OPERATIONS  
ISOLATION AND TESTING OF ANTIVIRAL SUBSTANCES FROM MARINE ALGAE  
CHARACTERIZE THE IMMUNE SYSTEMS OF MARINE MAMMALS USED BY THE NAVY

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

EQUIPMENT INCLUDES MINIATURE DEEP FREEZE AND MINIATURE FIELD INCUBATORS FOR VIRUS ISOLATION, ROTATING DRUM USED TO INVESTIGATE EFFECT OF LIGHT ON AEROSOLIZED MICRO-ORGANISMS AND PHOTOCHEMICAL REACTIONS, A HYPERBARIC TEST FACILITY, MICROALBROFLUOROMETER USED TO TRACK AEROSOL CLOUDS AND CLASS IV CONTAINMENT FACILITIES FOR HANDLING EXTREMELY PATHOGENIC VIRUS AND BACTERIA, CONTINUOUS FLOW LIQUID WASTE DECONTAMINATION UNIT, PROCESS AIR DECONTAMINATION SYSTEM, MOVABLE 400 LITER AEROSOL TEST CHAMBERS, ELECTRON SPIN RESONANCE AND NUCLEAR MAGNETIC RESONANCE SPECTROMETERS, SPECTROPHOTOMETER, SPECTROFLUOROMETER AND BOTH SCANNING AND TRANSMISSION ELECTRON MICROSCOPES. THE EQUIPMENT IS CONTINUOUSLY BEING MODIFIED AND EXPANDED ACCORDING TO CURRENT PROJECTS. NBL IS A CONTRACT BASIC RESEARCH LAB WITH THE USN. MAJORITY OF SCIENTIFIC & TEC PERSONNEL ARE USN EMPLOYEES.

INSTALLATION: CIVIL ENGINEERING LABORATORY

PORT HUENEME, CA.

CO. CAPT. RONALD P. COPE

TECH. DIR. WILLIAM F. BURKART

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	22.850	24.046
TOTAL PROCUREMENT	0.219	0.310
TOTAL OEM	2.308	2.219
TOTAL OTHER	1.400	1.375
TOTAL ANNUAL LAB	26.777	27.950
TOTAL INHOUSE	13.923	14.791
TOTAL INHOUSE RDT&E	11.724	12.701
ANNUAL OPERATING COST	3.115	3.281

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	16	1	8	8
CIVILIAN	309	28	170	139
TOTAL	325	29	178	147

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
30	81.840	71.748	44.158	197.746	7.59	3.429

...MISSION

MISSION OF LABORATORY IS TO BE THE PRINCIPAL RDT&E CENTER FOR NAVY SHORE FACILITIES, FIXED SURFACE AND SUBSURFACE OCEAN FACILITIES AND FOR THE NAVY AND MARINE CORPS CONSTRUCTION FORCES.

...CURRENT IMPORTANT PROGRAMS

NAVY SHORE FACILITIES SUPPORT. NAVY SEAFLOOR INSTALLATIONS, AMPHIBIOUS & ADVANCED BASE TECHNOLOGY. ENVIRONMENTAL PROTECTION. ORGANIC MATERIALS. ENERGY TECHNOLOGY. DEEP OCEAN TECHNOLOGY. OFFSHORE BULK FUEL TRANSFER. INDEPENDENT EXPLORATORY DEVELOPMENT. INDEPENDENT RESEARCH. CONTAINER OFF-LOADING TRANSFER SYSTEM (COTS). MARINE CORPS. ARMY.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRESSURE VESSEL FACILITY WITH 9-72 INCH VESSELS SIMULATING PRESSURES TO OCEAN DEPTHS OF 20,000 FEET. DIVING LOCKER AND EQUIPMENT FOR 10 DIVERS. SEA FLOOR SOILS LAB. ENERGY TEST BED. CLASS C PHOTO LAB. PHYSICAL SECURITY LABS. CHEMISTRY LAB. INSTRUMENTATION LAB. WARPING TUG ELECTRO-MAGNETIC FACILITY CORROSION & METALLURGICAL LABS. ENVIRONMENTAL RESEARCH LAB. CDC 8090 TERMINAL WITH HIGH SPEED READER & LINE PRINTER. DIGITAL MAG TAPE. PEN PLOTTER. CURRENT SENSOR LAB. ENERGY MONITORING CAPABILITY. PROTOTYPE MACHINE, WELDING, CARPENTER, AND RIGGING SHOPS. SHALLOW OCEAN SIMULATING FACILITY. MATERIAL TESTING LAB. ELECTRICAL SYSTEMS LAB. CONCRETE MIXING LAB. AGGREGATE PROCESSING LAB. DATA PROCESSING CENTER.

# INSTALLATION: CLOTHING & TEXTILE RESEARCH FACILITY

NATICK, MA.

CO. CDR. DONALD S. PARSONS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	1.060	1.304
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	1.067	0.994
TOTAL OTHER	0.029	0.216
TOTAL ANNUAL LAB	2.156	2.514
TOTAL INHOUSE	1.989	1.862
TOTAL INHOUSE RDT&E	1.060	0.980
ANNUAL OPERATING COST	0.032	0.060

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	1	0	1	0
CIVILIAN	55	1	37	18
TOTAL	56	1	38	18

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	10.000	7.000	3.000	20.000	0.44	0.975	

## ...MISSION

CONDUCT RESEARCH DEVELOPMENT TEST & EVALUATION & PROVIDE ENGINEERING SUPPORT IN CLOTHING TEXTILES & RELATED FIELDS ASSOCIATED WITH SERVICE CLOTHING & ENVIRONMENTAL PROTECTIVE CLOTHING

## ...CURRENT IMPORTANT PROGRAMS

WOMEN'S SEA ENVIRONMENTAL PROTECTIVE CLOTHING  
FLAME-RETARDANT MATERIALS AND CLOTHING CONCEPTS  
BATTLE DRESS CLOTHING  
ENERGY CONVERSIONS SYSTEM FOR PROTECTIVE CLOTHING  
SHIPBOARD DAMAGE CONTROL CLOTHING

## ...FUNCTIONS/EQUIPMENT/CAPABILITIES

AIR-SEA ENVIRONMENTAL TEMPERATURE LAB, AIR CHAMBER-MARINE TANK REPRODUCES AIR-SEA TEMP CONDITIONS FOR WATER IMMERSION PHYSIOLOGY & BUOYANCY TESTS  
ENVIRONMENTAL TEST CHAMBER FOR EVALUATING PROTECTIVE CLOTHING UNDER WORK STRESS & EXTREME TEMPERATURES.  
HYDROSPACE SIMULATOR, PRESSURE CHAMBER FOR DEPTH SIMULATION STUDIES  
PRESSURE EFFECTS ON CLOTHING MATERIAL PROPERTIES.  
THERMAL FLAMMABILITY APPARATUS FOR CONDUCTING FLAME RETARDANCY, FLAMMABILITY & HEAT RESISTANCE MATERIAL TESTING.  
CHEMICAL & PHYSICAL TESTING EQUIPMENT FOR CONDUCTING RDT&E ON FABRICS, YARNS, FIBERS, LEATHER, PLASTICS, RUBBER, DYES & FINISHES.  
SEWING MACHINES & PATTERN DRAFTING FOR DEVELOPING GARMENTS

INSTALLATION: COASTAL SYSTEMS CENTER

PANAMA CITY, FL.

CO. CAPT. RAYMOND D. BENNETT TECH. DIR. MR. GERALD G. GOULD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	33.067	40.611
TOTAL PROCUREMENT	3.909	5.454
TOTAL U&M	6.448	6.901
TOTAL UTMER	3.474	2.625
TOTAL ANNUAL LAB	46.498	55.491
TOTAL INHOUSE	25.547	27.528
TOTAL INHOUSE RDT&E	16.980	19.119
ANNUAL OPERATING COST	8.218	9.966

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	111	0	12	99
CIVILIAN	621	21	269	352
TOTAL	732	21	281	451

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		OTHER	REAL PROP
665	346.019	38.150	247.230	631.399	33.21	17.280

#### ...MISSION

TO BE THE PRINCIPAL NAVY ACTIVITY FOR CONDUCTING RDT&E IN SUPPORT OF NAVAL MISSIONS AND OPERATIONS THAT TAKE PLACE PRIMARILY IN THE COASTAL (CONTINENTAL SHELF) REGIONS.

#### ...CURRENT IMPORTANT PROGRAMS

DIVING, SALVAGE, AND SPECIAL WARFARE  
MINE COUNTERMEASURES  
TORPEDO AND SONAR COUNTERMEASURES  
AMPHIBIOUS/INSHORE WARFARE SUPPORT  
COASTAL TECHNOLOGY AND ADVANCED/SPECIAL CRAFT T&E

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

OCEAN SIMULATION FAC. HYDROSPACE LAB. HYDRODYNAMIC PRESSURE SIMULATOR.  
SWIMMER/DIVER R&D FAC. WET SUBMERSIBLE VEHICLE FAC. GAS ANALYSIS LAB.  
TWO OFFSHORE PLATFORMS WITH LIVING QUARTERS FOR 30 & 6 PEOPLE. MAGNETIC  
TARGET DETECTION & CLASSIFICATION RANGE. SYSTEMS DEVELOPMENT & TEST FAC.  
MAGNETIC LAB. CALIBRATION & STANDARDS FAC. MECHANICAL CALIBRATION LAB.  
OPTICAL POSITIONING SYSTEM. POST RUN ANALYSIS SYSTEM. PORTABLE TRACKING.  
ELECTRONIC TRACKING RANGE. ACOUSTIC TEST FAC. PRECISION ACOUSTIC TANK.  
ACOUSTIC ANALYSIS FACILITY. TRANSDUCER LAB AND CALIBRATION FACILITY.  
SONAR TEST BED FACILITY. CABLE TEST FACILITY. COUNTERMEASURES EVALUATOR.  
BURROUGHS 5-5700 DIGITAL COMPUTER. ENVIRONMENTAL MONITORING FACILITY.  
INDUSTRIAL SHOPS. PIER SPACE & BOATS TO INCLUDE RESEARCH VESSEL, ATHENA.  
MSU-443, USS FIDELITY. HELIPORT COMPLEX WITH 2 RH53D & 1 UH1E HELOS.



INSTALLATION: DAVID W. TAYLOR SHIP R&D CENTER

PETHESDA, MD.

CG. CAPT. M.V. RICKETTS

TECH. DIR. DR. A. POWELL

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	125.978	132.411
TOTAL PROCUREMENT	13.058	12.115
TOTAL OEM	24.183	23.001
TOTAL UTHER	14.025	10.884
TOTAL ANNUAL LAB	177.244	178.411
TOTAL INHOUSE	109.356	110.776
TOTAL INHOUSE RDT&E	73.218	78.129
ANNUAL OPERATING COST	36.247	49.267

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	78	2	22	56
CIVILIAN	2489	125	1166	1323
TOTAL	2567	127	1188	1379

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)
	LAB ADMIN OTHER TOTAL	REAL PROP EQUIP
324	1709.038 102.847 245.262 2057.147	70.90 69.889

...MISSION

TO BE THE PRINCIPAL NAVY RDT&E CENTER FOR NAVAL VEHICLES AND LOGISTICS, AND TO PROVIDE RDT&E SUPPORT TO THE U.S. MARITIME ADMINISTRATION AND THE MARITIME INDUSTRY.

...CURRENT IMPORTANT PROGRAMS

SUBMARINE SILENCING, TARGET STRENGTH REDUCTION, SUBMARINE MANEUVERING, PRESSURE HULLS, PROPELLER DESIGN, ELECTRIC PROPULSION, CIRCULATION CONTROL ROTORS AND WINGS, ENERGY CONSERVATION AND SOURCES, HIGH STRENGTH STEEL, HYDROFOILS, SWATH, SURVIVABILITY, LOGISTICS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PLAN AND CONDUCT RDT&E FOR NAVAL VEHICLES (SHIPS, SUBMARINES & AIRCRAFT) AND SUPPORT THE OPERATING FORCES IN THE AREAS OF SHIPS SYSTEMS DEVELOPMENT AND TECHNOLOGY (HYDRODYNAMICS, STRUCTURES, ACOUSTICS, PROPULSION AND AUXILIARY MACHINERY SYSTEMS, SHIPS MATERIALS ENGINEERING, COMPUTER-AIDED SHIP DESIGN), AIRBORNE AERODYNAMICS AND LOGISTICS. FACILITIES INCLUDE: SHALLOW AND DEEP WATER TOWING BASINS, MANEUVERING & SEAKEEPING BASIN, WIND TUNNELS, ANECHOIC FLOW FACILITY, WATER TUNNELS, STRUCTURAL EVALUATION LAB, UNDERWATER EXPLOSIONS LABORATORY BARGE, SEVERAL LARGE PRESSURE TANKS, SUBMARINE INTERNAL FLUID DYNAMICS FACILITY, METALLURGICAL CHARACTERIZATION AND EVALUATION FACILITY, WELDING DEVELOPMENT LABORATORY, AND MACHINERY DEVELOPMENT LABORATORY.

INSTALLATION: DENTAL RESEARCH INSTITUTE,NTC

GREAT LAKES,IL.

CD. CAPT. M.R. WIRTHLIN JR.

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	0.697	0.830
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.000	0.000
TOTAL OTHER	0.545	0.583
TOTAL ANNUAL LAB	1.242	1.413
TOTAL INHOUSE	1.242	1.413
TOTAL INHOUSE RDT&E	0.697	0.830
ANNUAL OPERATING CUST	0.254	0.320

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	29	12	16	13
CIVILIAN	10	3	4	14
TOTAL		15	20	27

ACRES	SPACE AND PROPERTY (THOUSANDS OF SQUARE FEET)		TOTAL	COST (MILLION \$)		
	ADMIN	OTHER		REAL PROP	EQUIP	
0	25.450	6.923	15.714	36.556	0.00	0.578

...MISSION

TO CONDUCT RESEARCH,DEVELOPMENT,TEST,AND EVALUATION IN DENTAL AND ALLIED SCIENCES, WITH PARTICULAR EMPHASIS ON PROBLEMS OF DENTAL AND ORAL HEALTH IN NAVY AND MARINE CORPS POPULATIONS ASHORE,AFLOAT AND IN THE FIELD.

...CURRENT IMPORTANT PROGRAMS

MONITORING ORAL HEALTH OF NAVAL PERSONNEL  
PROCEDURES FOR TREATMENT OF DENTAL PULP DISEASE  
WOUND HEALING OF SUPPORTING TISSUES  
NAVY DENTAL TECHNICIAN UTILIZATION  
DENTAL EQUIPMENT DEVELOPMENT AND EVALUATION OF FLEET HEALTH

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AMINO ACID ANALYZER/ATOMIC ABSORPTION UNIT/FLOURIDE ELECTRODES/  
SCINTILLATION COUNTER/MINI COMPUTER/GAS CHROMATOGRAPH UNIT/FOUR DENTAL  
UNITS/FOUR DENTAL CHAIRS/TRANSMISSION ELECTRON MICROSCOPE DIAZZO PROCES-  
SOR,SPECTRUPHOTOMETERS,ORAL SURGERY CHAIR,THERMAL BALANCE VIVARIUM,X-RAY  
EQUIPMENT,SOUND METERS,INCUBATORS,CENTRIFUGES,FRACTIONATORS,FIELD DENTAL  
EQUIPMENT,PHOTO.LAB,ANIMAL FACILITIES,DENTAL EQUIPMENT REPAIR SHOP.

INSTALLATION: ENVIRONMENTAL PREDICTION RESEARCH FACILITY MONTEREY, CA.

CO. CAPT. W.G. SCHRAMM

DIR. OF RSCH. DR. A. WEINSTEIN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	3.151	3.729
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.000	0.000
TOTAL OTHER	0.261	0.284
TOTAL ANNUAL LAB	3.412	4.013
TOTAL INHOUSE	1.567	1.813
TOTAL INHOUSE RDT&E	1.306	1.529
ANNUAL OPERATING COST	0.531	0.584

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	14	1	5	9
CIVILIAN	33	7	23	10
TOTAL	47	8	28	19

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	1.362	4.858	10.594	16.814	0.00	0.883

...MISSION

CONDUCT RESEARCH AND DEVELOPMENT DIRECTED TOWARD PROVIDING OBJECTIVE LOCAL, REGIONAL AND GLOBAL ENVIRONMENTAL ANALYSIS AND PREDICTION TECHNIQUES. PROVIDE PLANNING, MODELING AND EVALUATION SERVICES TO DETERMINE THE EFFECT OF ENVIRONMENTAL ELEMENTS ON NAVAL WEAPON SYSTEMS

...CURRENT IMPORTANT PROGRAMS

DEVELOP TECHNIQUES FOR PROCESS/DISPLAY OF ENVIRONMENTAL SATELLITE DATA  
DEVELOP COMPUTER MODELS TO ANALYZE/ASSIMILATE ATMOSPHERIC DATA  
DEVELOP TECHNIQUES TO PREDICT/DIAGNOSE ATMOS EFFECTS ON WEAPON SYSTEMS  
DEVELOP OBJECTIVE LOCAL/REGIONAL ATMOS ANALYSIS/PREDICTION TECHNIQUES  
DEVELOP SYNOPTIC, SUBSYNOPTIC AND MESOSCALE ATMOS PREDICTION MODELS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

DATACRAFT/5 COMPUTER  
TWO NUVA 2 COMPUTERS  
ACCESS TO CDC CYBER 175 COMPUTER  
ACCESS TO 3 CDC 6500 COMPUTERS  
CAPABILITY OF BUILDING, ANALYZING AND MODIFYING GLOBAL, REGIONAL AND LOCAL WEATHER MODELS  
CAPABILITY OF RECEIVING ENHANCING AND ANALYZING REMOTELY SENSED ATMOS DATA

INSTALLATION: EXPLOSIVE ORDNANCE DISPOSAL FACILITY

INDIAN HEAD, MD.

CO. CDR. J.T. KENNEDY

TECH.DIR. MR. L.A. DICKENSON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	3.648	6.865
TOTAL PROCUREMENT	0.635	1.300
TOTAL O&M	3.910	1.273
TOTAL OTHER	0.980	1.000
TOTAL ANNUAL LAB	9.173	10.438
TOTAL INHOUSE	5.406	5.656
TOTAL INHOUSE RDT&E	1.677	3.978
ANNUAL OPERATING COST	3.507	1.922

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	36	0	10		26
CIVILIAN	165	1	41		124
TOTAL	201	1	51		150

ACRES	SPACE AND PROPERTY (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	UTHER		REAL PROP	EQUIP
1087	34.681	16.936	53.249	104.866	4.24	1.004

#### ...MISSION

CONDUCT RESEARCH, DEVELOPMENT, TEST AND EVALUATION CONCERNING BOTH THE DISPOSAL AND RENDERING-SAFE PROCEDURES FOR CONVENTIONAL AND SPECIAL WEAPONS, GUIDED MISSILES, UNDERWATER WEAPONS, EXPLOSIVES, BIO AND CHEM. MUNITIONS, BOTH U.S. AND FOREIGN, PLUS THE REQUIRED TOOLS AND EQUIPMENT.

#### ...CURRENT IMPORTANT PROGRAMS

RANGE CLEARANCE AND DISPOSAL TECHNIQUES  
TERRORIST DEVICES COUNTERMEASURES  
REMOTE EXPLOSIVE CASE ENTRY SYSTEMS  
IMPROVISE NUCLEAR DEVICE COUNTERMEASURES  
EOD DIVER BREATHING SYSTEM

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

DEVELOP EXPLOSIVE ORDNANCE DISPOSAL -EOD- PROCEDURE, PREPARE AND PUBLISH EOD PUBLICATIONS FOR JOINT-SERVICE USE, CONDUCT EXP. AND ADV. DEVELOPMENT LEADING TO SPECIALIZED TOOLS AND EQUIP. NEEDED TO LOCATE, IDENTIFY, RECOVER, RENDER-SAFE AND DISPOSE OF ALL TYPES OF EXPLOSIVE ORDNANCE. PREPARE AND MAINTAIN DOCUMENTATION FOR EOD TOOLS AND EQUIP. CONDUCT FIRST ARTICLE INSPECTION ON EOD TOOLS BEING PROCURED FOR ALL SERVICES. CONDUCT IN-SEARCH ENGINEERING FUNCTIONS FOR EOD AND SWIMMER WEAPONS SYSTEM TOOLS. CONDUCT INITIAL EVALUATION OF FOREIGN EXPLOSIVE ORDNANCE. MAINTAIN, STOCK AND ISSUE EOD PUBLICATIONS FOR JOINT-SERVICE USE. CAPABILITY OF TESTING EOD TOOLS TO A DEPTH OF 400 FT IN A DIVING CHAMBER

INSTALLATION: HEALTH RESEARCH CENTER

SAN DIEGO, CA.

CO. CAPT. RICHARD H. RAHE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	2.371	2.365
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.000	0.000
TOTAL OTHER	0.556	0.575
TOTAL ANNUAL LAB	2.927	2.940
TOTAL INHOUSE	2.927	2.940
TOTAL INHOUSE RDT&E	2.371	2.365
ANNUAL OPERATING COST	0.486	0.670

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	33	7	16		17
CIVILIAN	80	10	38		42
TOTAL	113	17	54		59

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
2	11.177	4.500	0.000	15.677	2.00	0.613	

#### ...MISSION

CONDUCT RSCH AND DEVELOPMENT ON MEDICAL AND PSYCHOLOGICAL ASPECTS OF HEALTH AND PERFORMING OF NAVAL SERVICE PERSONNEL AND TO PERFORM SUCH OTHER FUNCTIONS OR TASKS AS MAY BE DIRECTED BY CHIEF BUMED

#### ...CURRENT IMPORTANT PROGRAMS

MORBIDITY FORECASTING  
PSYCHOLOGICAL DEFENSES, COPING IN THE NAVAL RECRUIT  
STUDY OF SLEEP PATTERNS/STRESS  
MEDICAL/PSYCHOLOGICAL RESPONSES TO PROLONGED STRESS  
RAPID DIAGNOSIS USING ANTIGEN-ANTIBODY REACTIONS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

ELECTROENCEPH MONITORING OF SLEEP PATTERNS  
CARDIOVASCULAR STRESS TESTING LAB  
MUSCLE STRENGTH TESTING LAB  
RADIOIMMUNO - ASSAY CAPABILITY  
SERUM AUTO-ANALYSIS  
MICROBIOLOGY DIAGNOSTIC KITS  
COMPUTER STORAGE-TOTAL USN/USMC HEALTH DATA  
COMPLETE HEALTH DATA FOR ENLISTED WOMEN  
STUDIES OF SUBMERSIBLES  
BIOCHEMICAL CORRELATES OF STRESS

INSTALLATION: MEDICAL RESEARCH INSTITUTE

BETHESDA, MD.

CO. CAPT. WALTER F. MINER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	11.269	11.973
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	3.116	3.334
TOTAL ANNUAL LAB	14.385	15.307
TOTAL INHOUSE	13.193	14.051
TOTAL INHOUSE RDT&E	10.077	11.617
ANNUAL OPERATING COST	4.300	5.423

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NUN- PROF
MILITARY	249	69	88	161
CIVILIAN	240	41	95	145
TOTAL	489	110	183	306

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		OTHER	REAL PROP
4	145.868	9.400	40.299	195.567	4.00	9.033

#### ...MISSION

CONDUCT BASIC & APPLIED RESEARCH &  
DEVELOPMENT CONCERNED WITH THE HEALTH,  
SAFETY, & EFFICIENCY OF NAVY  
PERSONNEL

#### ...CURRENT IMPORTANT PROGRAMS

TISSUE TYPING ORGAN TRANSPLANTS & IMMUNOSUPPRESSION IN RESTORATIVE SURG  
BASIC & APPLIED MICROBIOLOGY & VACCINE DEV TO CONTROL MALARIA & SCHISTO  
BASIC MECHANISM OF BACTERIAL & TRAUMATIC SHOCK HEAT STRESS & TOXIC MAT  
PSYCHOLOGICAL AND PHYSIOLOGICAL EFFECTS OF HYPERBARIC ENVIRONMENT  
MECHANISMS OF ORAL PLACQUE DISEASE & TREATMENT OF ORAL DISEASE & TRAUMA

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

ENVIRONMENTAL HEALTH EFFECT LAB INCLUDE MAN-RATED HYPERBARIC CHAMBERS  
HUMAN PHYSIOLOGICAL & HEAT STRESS EQUIPMENT & FACILITIES  
HUMAN TISSUE PRESERVATION & STORAGE EQUIPMENT & FACILITIES  
BIOHAZARDOUS MATERIALS HANDLING LAB EQUIPMENT & FACILITIES  
TOXICOLOGY EVALUATION EQUIP & FACILITIES INCLUDE HYPERBARIC CHAMBERS  
TRANSMISSION & SCANNING ELECTRON MICROSCOPES FLUORESCENT ANTIBODY CELL  
SORTER & COMPUTER  
EXPERIMENTAL ANIMAL FACILITIES ANIMAL HOUSE & OPERATING ROOMS  
LAB EQUIPMENT & FACILITIES FOR BASIC & APPLIED BIOCHEMICAL,  
MICROBIOLOGICAL, & PSYCHOLOGICAL STUDIES.

INSTALLATION: MEDICAL RESEARCH UNIT NO.2

MANILA, PHILIPPINES

CO. CDR. WILLIAM H. SCHROEDER SCI.DIR.DR. JOHN CROSS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	2.057	0.793
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.568	0.312
TOTAL ANNUAL LAB	2.625	1.105
TOTAL INHOUSE	2.496	1.105
TOTAL INHOUSE RDT&E	2.057	0.793
ANNUAL OPERATING COST	1.020	0.365

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	
MILITARY	31	6	9	22
CIVILIAN	54	3	4	50
TOTAL	85	9	13	72

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
0	10.370	3.500	0.600	14.470	0.00	0.807

...MISSION

TO CONDUCT RESEARCH AND DEVELOPMENT ON INFECTIOUS DISEASES OF MILITARY IMPORTANCE THAT ARE ENDEMIC OR EPIDEMIC IN ITS ASSIGNED GEOGRAPHICAL AREA.

...CURRENT IMPORTANT PROGRAMS

CONDUCTS RESEARCH AND DEVELOPMENT IN THE BIOMEDICAL SCIENCES. PROVIDES DATA ON DISTRIBUTION AND PREVALENCE OF INFECTIOUS DISEASES IN WESTERN ASIA, ESP. PHILIPPINES AND INDONESIA. EXPERIMENTAL AND IMMUNOLOGICAL STUDIES ON SCHISTOSOMIASIS AND FILARIASIS AND ON ETIOLOGY OF DIARRHEAL DISEASES AND INFLUENZA SURVEILLANCE.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

STUDIES ON THE DIAGNOSIS, DISTRIBUTION, AND PREVALENCE OF TROPICAL DISEASE EPIDEMIOLOGIC STUDIES ON INFECTIOUS DISEASES IN ASIA. ADEQUATE LABORATORY FACILITIES FOR STUDIES ON VIRAL, BACTERIAL, PARASITIC, AND ARTHROPOD-BORNE DISEASES. CLINICAL, BIOCHEMICAL AND PATHOLOGY LABORATORIES, RADIOISOTOPE EQUIPMENT, COMPUTER CAPABILITY. FULLY OPERATIONAL PERMANENT DETACHMENT IN JAKARTA, INDONESIA, WITH ADEQUATE CAPABILITIES TO CONDUCT ALL ASPECTS OF BIOMEDICAL RESEARCH. FIELD COLLECTING FACILITY IN TAGUDIN, ILOCOS SUR, & LUZON, PHILIPPINES. LABORATORY ANIMAL CARE FACILITIES IN INDONESIA.

INSTALLATION: MEDICAL RESEARCH UNIT NO.3

CAIRO, EGYPT

CO. CAPT. RAYMOND H. WATTEN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	1.913	1.726
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.000	0.000
TOTAL UTHER	0.593	0.575
TOTAL ANNUAL LAB	2.506	2.301
TOTAL INHOUSE	1.203	1.259
TOTAL INHOUSE RDT&E	0.610	0.684
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	27	6	10		17
CIVILIAN	54	12	54		0
TOTAL	81	18	64		17

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	41.068	8.962	55.350	105.380	1.44	0.736

...MISSION

TO CONDUCT RESEARCH AND DEVELOPMENT IN INFECTIOUS DISEASES OF MILITARY IMPORTANCE TO ITS ASSIGNED GEOGRAPHICAL AREA, AND, TO PERFORM SUCH OTHER FUNCTIONS AS MAY BE DIRECTED BY THE CHIEF BUREAU OF MEDICINE & SURGERY

...CURRENT IMPORTANT PROGRAMS

MENINGITIS STUDY

PATHOPHYSIOLOGY AND TREATMENT OF SCHISTOSOMIASIS

ARTHROPOD VIRUS ISOLATIONS IN TICKS, MOSQUITOES, AND SANDFLIES

IMMUNOLOGY OF HUMAN SCHISTOSOMIASIS

VIRAL, ECOLOGICAL, CLINICAL AND EPIDEMIOLOGY OF RIFT VALLEY FEVER

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MODEL LS2, VERTICAL ILLUMINATOR OUTFIT, OIL FIRED PORTABLE HOT HIGH PRESSURE CLEANER, ROTARY MICROTOME, AUTOMATED MICROTOME KNIFE SHARPENER, FREEZING CHAMBER, BIOGARD HOOD, ABSORBANCE MONITOR WITH STAND & FLOW CELL, INCUBATOR ULTRA CENTRIFUGE, NIKON INVERTED MICROSCOPE, AUTOMATIC SLIDE STAINER, HABMA CONV'T PLATELET COUNTING SYSTEM, MICROTOME AU, COULTER COUNTER, REVCO FREEZERS, CENTRIFUGES, PATIENTS WARD TO HOSPITALIZE SICK EGYPTIANS, PUBLIC WORKS FACILITY, TECHNICOM TISSUE PROCESSOR, PICKER X-RAY APPARATUS, CLIMATIZER, WORLD'S MOST COMPLETE TICK COLLECTION, EXTENSIVE MEDICAL LIBRARY, ANIMAL FACILITY.



INSTALLATION: NATIONAL PARACHUTE TEST RANGE

EL CENTRO, CA.

CO. CAPT. E. D. LIGHTER

TECH. DIR. MR. H. C. FISH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)*	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	10.017	0.000
TOTAL PROCUREMENT	1.874	0.000
TOTAL O&M	1.035	0.000
TOTAL OTHER	3.041	0.000
TOTAL ANNUAL LAB	15.967	0.000
TOTAL INHOUSE	11.886	0.000
TOTAL INHOUSE RDT&E	8.551	0.000
ANNUAL OPERATING COST	4.055	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	
MILITARY	202	0	12	190
CIVILIAN	261	0	19	242
TOTAL	463	0	31	432

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		OTHER	REAL PROP
484608	6.400	56.670	1142.407	1205.477	33.06	20.629

#### ...MISSION

CONDUCT RDT&E AND FOLLOW-ON ENGINEERING OF AERODYNAMIC DECELERATORS. ASSOCIATED SYSTEMS, ASSEMBLIES AND EQUIPMENT, AND TO PROVIDE COMMON RANGE, TECHNICAL AND BASE SUPPORT FOR UNITS OF OPERATING FORCES OF THE NAVY AND OTHER DOD APPROVED USERS.

#### ...CURRENT IMPORTANT PROGRAMS

SEA-WATER ACTUATED RELEASE SYSTEM

TAV-8A ESCAPE SYSTEM

SJU-3A EJECTION SEAT

MARTIN BAKER ESCAPE SYSTEM FOR F-18

EXPLORATORY DEV.-PARACHUTE REPACK STUDY, AEROCONICAL VACUUM PACK PRCHT.

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

DROP TEST RANGE LAND AND SALT WATER. SPACE POSITIONING PHOTO CCTV TELEMETRY INSTRUMENTATION-ADP FOR RANGE DATA-PARAMETERS SEA LEVEL TO 80KFT ENGINEERING SERVICES-EXPLORATORY DEVELOPEMENT ADVANCED AND BASIC DESIGN IN SERVICE ENGINEERING MATERIALS TESTING LAB PHYSIOLOGICAL EVAL. EQUIPMENT-PHOTO LAB STILL AND MOTION-16MM TO 70MM AND COLOR 5000 FPS. AIRCRAFT-TRANSPORT DELIVERY LOW TO HIGH SPEED-VEHICLE DELIVERY-AIR TO AIR PHOTO COVERAGE-EJECTION SEAT TEST BED-PERSONNEL DELIVERY. INDUSTRIAL SHOPS-MACHINE SHOP-MODEL MAKING-VEHICLE AND PROTOTYPE PARACHUTE AND HARDWARE FABRICATION-CARPENTRY-WOODWORKING PAINTING METAL FABRICATION FOR WELD, HEAT TREAT AND MAGNAFLUX

\*

ACTIVITY DISESTABLISHED. ZERO FUNDS SHOWN FOR 1980

INSTALLATION: OCEAN R & D ACTIVITY

BAY ST. LOUIS, MS.

CU. CAPT. C. G. DARRELL

TECH. DIR. DR. R. R. GOODMAN

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	29.891	32.152
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.425	0.458
TOTAL OTHER	2.108	2.264
TOTAL ANNUAL LAB	32.424	34.874
TOTAL INHOUSE	14.914	16.038
TOTAL INHOUSE ROT&E	13.618	14.647
ANNUAL OPERATING COST	3.786	4.589

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	10	3	10	0
CIVILIAN	261	47	216	45
TOTAL	271	50	226	45

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
5	63.976	18.990	25.794	108.760	9.00	5.000

...MISSION

TO CARRY OUT A BROAD BASED ROT&E PROGRAM IN OCEAN SCIENCE AND TECHNOLOGY WITH EMPHASIS ON UNDERSTANDING OCEAN PROCESSES THRU MEASUREMENT AND ANALYSIS, AND THE EFFECTS OF THIS OCEAN ENVIRONMENT ON NAVY SYSTEMS AND OPERATIONS

...CURRENT IMPORTANT PROGRAMS

ACOUSTIC BUT INTERACTION PROG IN SUPPORT OF DEEP OCEAN SURV SYS DEV. AND OPER. DEV OCEAN PKED MODELS TO ACQUIRE, ANAL, INTERPRET OCEAN ENV DATA FROM REMOTE SENS SYS. RES EFFORTS IN ARCTIC REGION TO QUANTIFY AND DESCRIBE EFFECTS OF POLAR ENV ON NAVY OPER SYS. MANAGE ENV ACOUSTICS SUP PROG. TACT ASW ENV ACOUSTICS SUP PROG. OCEAN MEAS PROG. MARINE EARTHQUAKE MONITOR SYS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

WAVE-CURRENT INTERACTION SIMULATION FACILITY. INTERACTIVE DIGITAL SATELLITE IMAGE PROCESSING SYSTEM TO HANDLE DATA FROM ALL IMAGING, SATELLITES, DEEP OCEAN SEDIMENT CORE AND DREDGE SAMPLE DEPOSITORY-1728 SQ FT. VERA IS A MULTI-PURPOSE HYDROPHONE, PRESSURE SENSOR KEVLAR ARRAY WHICH CAN BE DEPLOYED IN VARIOUS MODES FOR EXPERIMENTAL MEASUREMENTS. X-RAY FLOURESCENCE, TRANSMISSION AND SCANNING, ELECTRON MICROSCOPE FACILITY.

INSTALLATION: OCEAN SYSTEMS CENTER

SAN DIEGO, CA.

COR. CAPT. S. L. GUILLE

TECH. DIR. DR. H. L. BLOOD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	159.562	175.410
TOTAL PROCUREMENT	37.065	23.094
TOTAL O&M	34.843	38.467
TOTAL OTHER	10.217	8.021
TOTAL ANNUAL LAB	241.687	244.992
TOTAL INHOUSE	119.125	147.436
TOTAL INHOUSE RDT&E	85.889	106.661
ANNUAL OPERATING COST	38.353	43.825

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	321	0	127		194
CIVILIAN	2470	165	1236		1184
TOTAL	2791	165	1413		1378

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP	
	LAB	ADMIN	OTHER				
3847	1162.394	205.889	163.233	1531.516	39.50	130.640	

#### ...MISSION

TO BE THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT, TEST AND EVALUATION CENTER FOR COMMAND CONTROL, COMMUNICATIONS, OCEAN SURVEILLANCE, SURFACE AND AIR LAUNCHED UNDERSEA WEAPON SYS, AND SUPPORTING TECHNOLOGIES.

#### ...CURRENT IMPORTANT PROGRAMS

OCEAN SURVEILLANCE SYS WITH SOSUS UPDATE AND MULTI-SENSOR INTEGRATION  
COMMAND CONTROL AND COMMUNICATIONS SYS ARCHITECTURE AND ENGINEERING  
ADVANCED SURFACE AND AIR LAUNCHED UNDERSEA WEAPON AND FIRE CONTROL SYS  
TECHNOLOGY DEVELOPMENTS SUCH AS ADV MARINE BIO SYS, EXTERNAL STOWAGE  
AND LAUNCH, ARCTIC SUB OPS, OCEAN ENGINEERING AND ELECTRONIC WARFARE

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES AT SAN DIEGO OR HAWAII LABS INCLUDE ARCTIC RESEARCH FACILITY; MICROWAVE AND MILLIMETER WAVE ANTENNA PATTERN RANGE COMPLEX; OCEANOGRAPHIC RESEARCH TOWER; STABLE SEMI-SUBMERGED PLATFORM; UNMANNED UNDERWATER TETHERED VEHICLES INCLUDING CURV III, SCAT, RUWS, AND SNOOPY; USS DOLPHIN, EXPERIMENTAL SUB; TRANSDUCER EVALUATION CENTER; ELECTRONICS DEVELOPMENT AND TEST LAB; MICROELECTRONICS LAB COMPLEX, ACOUSTIC SIGNAL DATA ANALYSIS AND CONVERS SYSTEM; SIMULATION AND REAL-TIME COMPUTER FACILITY FOR DEVELOPMENT OF ASW SYSTEMS; SHIP MOTION SIMULATOR; AND A BIO-SCIENCE FACILITY ENGAGED IN RESEARCH, TRAINING, AND HANDLING OF MARINE MAMMALS. OFF-STATION FACILITIES INCLUDE A VERY LOW FREQUENCY SOUNDER SITE IN ARIZONA

INSTALLATION: OFFICE OF NAVAL RESEARCH

WASHINGTON D.C.

CO. RAUM A.J. BACIOCCO JR. TECH DIR DR. JEROME A. SMITH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	264.738	295.243
TOTAL PROCUREMENT	4.449	4.500
TOTAL O&M	121.465	105.855
TOTAL OTHER	5.857	5.466
TOTAL ANNUAL LAB	396.509	411.064
TOTAL INHOUSE	15.192	16.242
TOTAL INHOUSE RDT&E	14.095	15.070
ANNUAL OPERATING COST	10.080	10.772

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	31	3	23	8
CIVILIAN	398	55	92	306
TOTAL	429	58	115	314

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		OTHER	REAL PROP	EQUIP
0	0.000	86.000	0.000	86.000	0.00	0.000	

...MISSION  
RESPONSIBLE FOR LEADERSHIP OF NAVY RESEARCH PROGRAM, MANAGEMENT AND DIRECTION OF UNR CONDUCTED RDT&E AND OF THE NAVY-WIDE PATENT PROGRAM, DEVELOPMENT OF NAVY-WIDE RDT&E FOR ASN(RES), WORLD WIDE RESEARCH INFO AND CONTRACT MGMT OF FEDERALLY FUNDED UNIVERSITY RESEARCH.

...CURRENT IMPORTANT PROGRAMS  
CONTRACT RESEARCH AND TECHNOLOGY PROGRAMS  
NAVY PATENT PROGRAM  
NAVY-WIDE RDT&E APPROPRIATION ADMINISTRATION  
FOCAL POINT FOR WORLD-WIDE RESEARCH INFORMATION  
CONTRACT MANAGEMENT PROGRAM AT EDUCATIONAL INSTITUTIONS

...FUNCTIONS/EQUIPMENT/CAPABILITIES  
ADMINISTRATION OF RESEARCH PROGRAMS IN PHYSICAL SCIENCES, MATHEMATICAL AND INFORMATION SCIENCES, BIOLOGICAL SCIENCES, PSYCHOLOGICAL SCIENCES, ARCTIC AND EARTH SCIENCES, MATERIAL SCIENCES, OCEAN SCIENCE AND TECHNOLOGY ADMINISTRATION OF TECHNOLOGY PROGRAMS IN NAVAL VEHICLE AND WEAPONS TECHNOLOGY, SENSOR AND CONTROL TECHNOLOGY, ANALYSIS AND SUPPORT. FIELD ACTIVITIES INCLUDE NRL, NORDA, NBL, ANDNARL. MANAGES TECHNICAL ASPECTS OF NAVY INDUSTRIAL INDEPENDENT RESEARCH AND DEVELOPMENT PROGRAM. MAINTAINS RESEARCH RESERVE PROGRAM. COORDINATES NAVAL RESEARCH AND PROMOTES CO-OPERATIVE RESEARCH EFFORTS WITHIN NAVY, OTHER DOD, NSF, NASA, DEPT OF ENERGY AND OTHER GOVERNMENT RESEARCH GROUPS. SUPPORT AND ADMINISTRATION OF NAVAL RESEARCH ADVISORY COMMITTEE.

INSTALLATION: ORDNANCE MISSILE TEST FACILITY

WHITE SANDS, N.M.

CO. CAPT. M.A. PETERSON, JR.

FAC. ENG. MR H.L. HENDON

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	4.066	5.172
TOTAL PROCUREMENT	0.218	0.000
TOTAL O&M	0.001	0.000
TOTAL OTHER	1.456	1.751
TOTAL ANNUAL LAB	5.741	6.923
TOTAL INHOUSE	2.494	3.269
TOTAL INHOUSE ROT&E	2.225	1.913
ANNUAL OPERATING COST	0.940	0.807

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	86	1	33		53
CIVILIAN	54	0	6		48
TOTAL	140	1	39		101

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP	
88	108.566	30.539	78.694	217.799	5.82	10.106	

...MISSION

SUPPORT THE NAVY GUIDED MISSILE AND RESEARCH ROCKET PROGRAMS INCLUDING GROUND AND FLIGHT TESTING, ASSIST JOINT SERVICE LASER GUIDED WEAPONS COUNTERMEASURE TEST, PARTICIPATE IN THE OPERATION OF THE DOD INTEGRATED MISSILE TEST RANGE AT WHITE SANDS

...CURRENT IMPORTANT PROGRAMS

STANDARD MISSILE 1 AND 2/AEGIS FLIGHT TESTING  
CRUISE MISSILE FLIGHT TESTING  
RAM FLIGHT TESTING  
VERTICAL LAUNCHER TESTING  
UPPER ATMOSPHERE RESEARCH ROCKET LAUNCHING

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FLIGHT TEST TERRIER/TARTAR/STANDARD/SAM GUIDED MISSILES AND PROJECTILES  
LAUNCH AEROBEE 150, 170, 200, ARIES, ASTROBEE F, D, BLACK BRANT ORION  
AND VARIOUS OTHER SOUNDING ROCKETS FOR UPPER ATMOSPHERIC STUDY  
CONDUCT NAVY AIR WEAPONS TESTS  
LAUNCH VARIOUS ROCKETS IN SUPPORT OF NASA PROJECTS  
LAUNCH VARIOUS ROCKETS IN SUPPORT OF AIR FORCE PROJECTS  
CONDUCT VARIOUS DEVELOPMENT TESTS FOR SSM AND SAM PROJECTS  
PROVIDE DRONE SUPPORT  
ASSIST IN OPEVAL OF CRUISE MISSILE  
MAINTAIN TARGET ECM EQUIPMENT  
5-INCH GUIDED PROJECTILE LAUNCH CAPABILITY  
PROVIDE WARHEAD AND EUD ANALYSIS ARENA

INSTALLATION: PACIFIC MISSILE TEST CENTER

POINT MUGU, CA.

CO. RAUM F.H. BAUGHMAN

TECH. DIR. MR. T.P. PERRY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	112.249	115.048
TOTAL PROCUREMENT	71.550	67.904
TOTAL O&M	49.892	52.607
TOTAL OTHER	49.940	48.804
TOTAL ANNUAL LAB	283.631	284.363
TOTAL INHOUSE	175.942	178.116
TOTAL INHOUSE RDT&E	78.574	80.534
ANNUAL OPERATING COST	20.307	20.569

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	1060	3	271		789
CIVILIAN	3743	9	992		2751
TOTAL	4803	12	1263		3540

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)		
	LAB	ADMIN	OTHER		REAL	PROP	EQUIP
27084	945.133	396.770	3490.632	4832.535	143.66	133.514	

#### ...MISSION

PERFORM DEVELOPMENT TEST AND EVALUATION, DEVELOPMENT SUPPORT, FOLLOW-ON ENGINEERING AND LOGISTICS AND TRAINING SUPPORT FOR NAVAL WEAPONS, WEAPON SYSTEMS AND RELATED DEVICES; AND PROVIDE MAJOR RANGE, TECHNICAL, AND BASE SUPPORT FOR FLEET USERS AND OTHER DEFENSE AND GOVERNMENT AGENCIES.

#### ...CURRENT IMPORTANT PROGRAMS

TOMAHAWK CRUISE MISSILE  
HARPOON ANTI-SHIPING MISSILE  
PHOENIX AIR-TO-AIR MISSILE  
F-14 TACTICAL SOFTWARE  
TRIDENT SUBMARINE-LAUNCHED BALLISTIC MISSILE

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

TEST LABORATORIES FOR WEAPON SYSTEMS SIMULATIONS, SYSTEM INTEGRATIONS, ENVIRONMENTAL, ANECHOIC, ELECTRONIC WARFARE COUNTERMEASURES, TACTICAL SOFTWARE SUPPORT, AIR AND SURFACE TRACKING RANGE-45000 SQUARE MILES/ RADARS- FPS-16, FPQ-10, FPQ-12, MPS-75/ THEODOLITES AND CINE SEXTANTS. RECEIVE, RECORD AND DISPLAY P, L AND S BAND TELEMETRY, REAL TIME AND POST OPERATIONAL DATA REDUCTION FACILITIES. MISSILE AND TARGET LAUNCH PLATFORMS AND FACILITIES. COMMAND CONTROL AND FLIGHT TERMINATION FACILITIES. SHIP MOTION SIMULATION. USNS WHEELING-TRACKING, TELEMETRY COMMAND, CONTROL AND FLIGHT TERMINATION SHIP FOR BROAD OCEAN AREA (PACIFIC) TESTS. MISSILE IMPACT LOCATION AND MISS-DISTANCE INDICATOR SYSTEMS. ALL-UP ROUND MISSILE TEST FACILITY. UNDERWATER TRACKING RANGE-1000 SQUARE MILES, 3-DIMENSIONAL 400-6000 FATHOMS.

INSTALLATION: PERSONNEL RESEARCH & DEVELOPMENT CENTER

SAN DIEGO, CA.

CO. CAPT. D.F. PARKER

TECH. DIR. DR. J.J. REGAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RD&E	13.579	18.945
TOTAL PROCUREMENT	0.311	0.104
TOTAL O&M	1.766	0.677
TOTAL OTHER	1.456	0.718
TOTAL ANNUAL LAB	17.112	20.444
TOTAL INHOUSE	8.961	10.716
TOTAL INHOUSE RD&E	7.172	9.557
ANNUAL OPERATING COST	2.924	3.396

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	27	1	9		18
CIVILIAN	267	79	171		96
TOTAL	294	80	180		114

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	63.580	7.080	0.000	70.660	0.48	2.350

...MISSION

PRINCIPLE NAVY ACTIVITY FOR CONDUCTING HUMAN RESOURCES ROTE IN THE AREAS OF MANPOWER PERSONNEL EDUCATION AND TRAINING AND TO SERVE AS THE COORD ACTIVITY FOR ALL SUCH ROTE FOR THE NAVY. PROVIDE SUPPORT TO CNM ACTIVITIES TO AUGMENT HUMAN FACTORS EFFORTS IN DEVELOPMENT OF NEW SYSTEM

...CURRENT IMPORTANT PROGRAMS

PERSONNEL ACQUISITION UTILIZATION AND EFFECTIVENESS  
HUMAN PERFORMANCE IN NAVY SYSTEMS  
PERSONNEL EDUCATION AND TRAINING  
PERSONNEL MANPOWER MANAGEMENT  
MANAGEMENT SYSTEMS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

GENERAL AUTOMATION 18/30 COMPUTER SYSTEM WITH REMOTE JOB ENTRY TO OTHER COMPUTER CENTERS PDP 12 LABORATORY INSTRUMENT CONTROL SYSTEM PDP 11/47 AUTOMATED TESTING AND TRAINING SYSTEM TEKTRONIC GRAPHIC TERMINALS INTERFACING WITH NAVAL OCEAN SYSTEMS CENTER UNIVAC 1100 MAXICOMPUTER

INSTALLATION: RESEARCH LABORATORY

WASHINGTON, D.C.

CO. CAPT. E. E. HENIFIN

DIR. OF RSCH. DR. ALAN BERMAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	188.575	194.462
TOTAL PROCUREMENT	6.339	5.908
TOTAL U&M	11.067	10.737
TOTAL OTHER	14.837	15.384
TOTAL ANNUAL LAB	220.818	276.491
TOTAL INHOUSE	181.726	186.748
TOTAL INHOUSE RDT&E	149.483	154.719
ANNUAL OPERATING COST	51.318	56.252

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	143	0	27		116
CIVILIAN	3251	596	1539		1712
TOTAL	3394	596	1566		1828

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
798	2312.917	192.677	479.359	2984.953	91.86	100.225	

#### ...MISSION

TO CONDUCT A BROADLY BASED MULTIDISCIPLINARY PROGRAM OF SCIENTIFIC RESEARCH AND ADVANCED TECHNOLOGICAL DEVELOPMENT DIRECTED TOWARD NEW AND IMPROVED MATERIALS, EQUIPMENT, TECHNIQUES, SYSTEMS, AND RELATED OPERATIONAL PROCEDURES FOR THE NAVY

#### ...CURRENT IMPORTANT PROGRAMS

NATO SEAGNAT

EFFECTIVENESS OF NAVAL ELECTRONICS WARFARE SYSTEMS

ADVANCED ACOUSTIC ANTI-SUBMARINE WARFARE SURVEILLANCE PROGRAM

SATELLITE PROGRAMS

ADVANCED HIGH PERFORMANCE MATERIALS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRINCIPAL RESEARCH AND DEVELOPMENT LABORATORY OF THE NAVY. PRIMARY AREAS ARE MATERIALS SCIENCE AND TECHNOLOGY, SPACE SCIENCE AND TECHNOLOGY, RADAR, ELECTRONIC WARFARE, LASER TECHNOLOGY, OPTICS, OPTICAL WARFARE, ELECTRONIC DEVICES, PLASMA AND NUCLEAR PHYSICS, INTELLIGENCE SUPPORT, UNDERSEA SURVEILLANCE, ENVIRONMENTAL SCIENCE AND TECHNOLOGY. MAJOR FACILITIES INCLUDE ONE SHIP FOR ACOUSTIC ASW RESEARCH, ACOUSTIC BATHYMETRY, AND DEEP OCEAN SEARCH. MAJOR ACOUSTIC STANDARD AND CALIBRATION FACILITIES. HIGH LEVEL RADIATION LABORATORY. THREE NUCLEAR PARTICLE ACCELERATORS. DIVERSE HIGH ENERGY LASERS. 200 KILOGAUSS HIGH FIELD MAGNET FACILITY. SPACE SIMULATION FACILITIES. MAJOR PLASMA PHYSICS FACILITIES. ELECTRONIC WARFARE CENTRAL TARGET SIMULATOR.



INSTALLATION: SUBMARINE MEDICAL RESEARCH LABORATORY

GROTON, CT.

CO. CDR. R.A. MARGOLIES

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	1.960	2.023
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.076	0.000
TOTAL OTHER	0.451	0.475
TOTAL ANNUAL LAB	2.487	2.498
TOTAL INHOUSE	2.487	2.498
TOTAL INHOUSE RDT&E	1.960	2.023
ANNUAL OPERATING COST	0.592	0.658

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PMUS	TOTAL PROF	NON- PROF
MILITARY	30	10	14	16
CIVILIAN	62	12	33	29
TOTAL	92	22	47	45

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)		
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
1	40.514	14.099	0.000	54.613	1.10	1.806

#### ...MISSION

TO CONDUCT MEDICAL RESEARCH AND DEVELOPMENT AS IT RELATES TO SUBMARINE, SHIPBOARD, AND DIVING ENVIRONMENTS.

#### ...CURRENT IMPORTANT PROGRAMS

COMPUTER ASSISTED DIAGNOSIS PROGRAMS FOR CORPSMEN ABOARD NUCLEAR SUBS.  
AUDITORY AND VISUAL TESTS AND EVALUATION OF SUBMARINERS AND DIVERS.  
HUMAN FACTORS EVALUATION OF CREWS IN SUBMARINE INFORMATION PROCESSING.  
PHYSIOLOGICAL, PSYCHOLOGICAL AND COMMUNICATIONS RESEARCH IN COLD WEATHER.  
HUMAN FACTORS, VISION, AUDITORY RSCH IN IMPROVED SONAR PROCESSING EQUIP.

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

BASIC AND APPLIED RESEARCH COMPETENCE IN CARDIOPULMONARY, THERMAL, AND HYPERBARIC PHYSIOLOGY, BIOCHEMISTRY, AUDITION, VISION, HUMAN FACTORS ENG., PERSONNEL ASSESSMENT, HYPERBARIC AND MECHANICAL SERVICES, ELECTRICAL INSTRUMENTATION AND REPAIRS, COMPUTER APPLICATIONS, VETERINARY SCIENCES, SUB-MED. RESEARCH LIBRARY, GRAPHIC ARTS, PHOTOGRAPHY, MODEL MAKING, HYPERBARIC CHAMBERS, HUMAN-150 PSI, ANIMAL-300 PSI AND 1000 PSI, ENVIR. CONTROL CHAMBERS, MEDICAL EXAM SUITE, SURGICAL SUITE, COMPUTER APPLICATION FACILITY, CLOSED CIRCUITRY SYSTEM, GAS CHROMATOGRAPHS, EEG, DOPPLER SYSTEM, SONAR STACK SIMULATION TEST SYSTEM, FLUIDIC CONTROL CONSOLE, AIR ION MONITORING SYSTEM, UNDERWATER TV SYSTEM.

INSTALLATION: SURFACE WEAPONS CENTER

SILVER SPRING, MD.

CO. CAPT P.L. ANDERSON

TECH.DIR. MR J E COLVARD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	213.932	207.035
TOTAL PROCUREMENT	32.001	22.968
TOTAL O&M	35.018	40.961
TOTAL UTHER	27.655	21.166
TOTAL ANNUAL LAB	308.606	292.130
TOTAL INHOUSE	149.335	176.476
TOTAL INHOUSE RDT&E	97.873	113.869
ANNUAL OPERATING COST	62.979	72.479

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	125	3	61	64
CIVILIAN	4607	231	2117	2490
TOTAL	4732	234	2178	2554

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		REAL PROP	EQUIP
5380	1656.578	175.258	1285.183	3117.019	90.47	85.325

#### ...MISSION

THE PRINCIPAL NAVY RESEARCH, DEVELOPMENT & EVALUATION CENTER FOR SURFACE SHIP COMBAT SYSTEMS, ORDNANCE, MINES, AND STRATEGIC SYSTEMS SUPPORT.

#### ...CURRENT IMPORTANT PROGRAMS

STRATEGIC SYSTEMS-TRIDENT, POSEIDON, MK500 RB, NWE, SMMT, SAFETY, SHP WPN SEC. COMBAT SYSTEMS-SEAFIRE, TERRIER, TARTAR, AEGIS, MK96FC, MAG SILENCNG, SWMPWPN. WEAPON SYSTEMS-MPWS, CW CM, 5IN/54 AMMO, HIPWR RAD, EXPL MAT, IR SRCH TRCK. UNDERWATER SYSTEMS-MINES, MK60, CAPTOR, QUICKSTRIKE, RPLS, ASW, MKXX TORP. ELECTRONIC SYSTEMS-EMPASS, EMP, SLQ32, OTH, FEWSG, GUID CNTRL, LHA INTEL CNTR.

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES INCLUDE-WIND TUNNELS TO MACH 20. BALLISTIC RANGES. 1.75 MILLION GAL HYDROBALLISTIC TANK. MAGNETIC STRUCTURE FACILITY FOR SHIP & SUB MODEL & SATELLITES. FBM DISCPAC PRODUCTION FACILITY. FACILITIES FOR ASSURANCE OF COMPUTER PROGRAMS FOR STRATEGIC AND TACTICAL MISSILE SYS, INTELLIGENCE PROCESSING SYS. GUNNERY AND MISSILE RANGE COMPLEX INCLUDING LAND-BASED DEVELOPMENT SITES FOR WEAPON CONTROL SYS. ELECTROMAGNETIC VULNERABILITY FACILITIES BOTH NUCLEAR & NON-NUCLEAR EFFECTS. FACILITIES FOR WARHEAD CHARACTERIZATION & DAMAGE TO TARGETS, DEVELOP & TEST FACILITIES FOR LASER AND ELECTRO-OPTICS SUBSYSTEMS, NONDESTRUCTIVE TESTING FACILITIES, DEEP WATER OFFSHORE FACILITIES FOR MINE SYS MOBILE TACTICAL WAR GAME FAC, EXPLOSIVES DEVELOPMENT FACILITIES, EXTENSIVE SCIENTIFIC COMPUTER FACILITY FUZES, EXPLOSIVES, MATERIAL, AND MARINE CORPS SUPPORT FACILITIES.

INSTALLATION: UNDERSEA RANGES DEPARTMENT

NEWPORT, RI.

CO. CAPT. A.S. MCLARSEN

SCI. DIR. MR.C.S. SOLIOZY

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	25.028	28.793
TOTAL PROCUREMENT	0.339	0.265
TOTAL O&M	6.408	6.410
TOTAL OTHER	0.846	0.741
TOTAL ANNUAL LAB	32.621	36.209
TOTAL INHOUSE	22.800	21.924
TOTAL INHOUSE RDT&E	21.828	20.958
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	44	0	8	36
CIVILIAN	38	1	26	12
TOTAL	82	1	34	48

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
1042	75.603	17.339	304.964	397.906	24.18	1.305

#### ...MISSION

TO PROVIDE DEEP WATER DEV & UPRTNL T&E FCLTYS FOR UNDRWTR ACSTIC MESRMNT S, TSTNG, & CALBRNG SONRS. PROVIDE ACURAT UNDRWTR, SRFCE, IN-AIR TRCKNG DA TA ON SHIPS, SUBS, AIRCFT, & WPN SYSTMS.

#### ...CURRENT IMPORTANT PROGRAMS

MK48 WEAPON SYSTEMS TRAINING CERTIFICATION PROGRAM

SHIP SILENCING PROGRAM

FLEET TRAINING/SUBKOC, SUBEX, SHAREM

AIRBORNE MINEX & TORP&X/RANG&X

R&D TESTS/CAPTOR/MP SONAR/TOWED ARRAYS/LAMPS/BQQ 5/DICASS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

HIGHLY ADVANCED & INSTRUMENTED ASW WEAPONS, SONAR & FORACS TEST MEASUREMENT RANGES IN SUPPORT OF NAVY ASW & UNDERSEA R&D PROGRAMS, & ASW FLEET ASSESSMENT & OPERATIONAL READINESS.

INSTALLATION: UNDERWATER SYSTEMS CENTER

NEWPORT, RI.

CO. CAPT. A.S. MCLAREN

TECH. DIR. DR. C. NICHOLAS PRYOR,

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	133.843	157.026
TOTAL PROCUREMENT	78.054	72.672
TOTAL O&M	1.816	69.124
TOTAL OTHER	14.722	12.602
TOTAL ANNUAL LAB	286.435	310.824
TOTAL INHOUSE	113.554	140.433
TOTAL INHOUSE RDT&E	56.111	73.082
ANNUAL OPERATING COST	34.325	29.255

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	99	1	26	73
CIVILIAN	2701	98	1397	1304
TOTAL	2800	99	1423	1377

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP
367	1059.983	241.839	581.567	1883.389	45.97	53.078

...MISSION

TO BE THE PRINCIPAL NAVY RDT&E CENTER FOR SUBMARINE WARFARE & SUBMARINE WEAPON SYSTEMS.

...CURRENT IMPORTANT PROGRAMS

ADVNC'D TECHNGY IN U/W ACOUSTCS, OCEAN ENGRNG, INFO PROCSNG, WEAPONRY DESGN, DEV & EVAL U/W COMBAT SUB SYSTMS INCNG SURFC SHIP SONAR MODRNZTN RDT&E FOR OVERALL U/W COMBAT SYSTEMS (TRIDENT, 688, ETC) DESGN, DEV & EVAL OF U/W TARGET SYSTEMS & MOBILE/FIXD U/W TEST RANGES INTRODUCE TO FLEET & IN-SERVICE ENGINEERING OF MK 48

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRIMARY IN-HSE R&D CAPABILITY FOR NAVY & MARNE CRP SYSTEMS, SUBSYSTEMS & TECHNLGYS FOR SONAR SYSTMS (HULL-TOWD/SUB COMCTNS SYSTMS INTEGRTN/SUB ANT-NA SYSTMS/UWTR WEAPN SYSTMS/UWTR TARGT SYSTMS/UWTR ACOUSTC PROPGTN (LANT & MED) UWTR RNGE TECHNLGY/REDINESS OF IN-SRVCE SHIPBORD UWTR SYSTMS/ASW SUP, CINCLNT, TORPEDO TEST RNGES (FIXED/PORTBLE) SHLOW & DP WTR, ASW WEAPON F-IRE CNTRL R&D FACILITY, ASW WEAPON LAUNCHNG DEVCE R&D FACLT, QLTY ENGRNG, EVALTN & RELIABTY LAB, BERNUDA RSSH FACLT, TORPEDO PROPULSN TEST FACLT, ELECTROMAGTIC FACILITY, SYSTMS CRTIFCTN & INTGRTN FACILITY, ACOUSTC MSRMNT & XDCER R&E FACLT, TORPEDO TEST RANGE, INSTRMNTN SHETER, ACOUSTC RNGE, ALT-EC, AZORES FIXD ACOUSTIC RANGE.

INSTALLATION: WEAPONS CENTER

CHINA LAKE, CA.

CU. CAPT. W. B. HAFF

TECH.DIR.MR.R.M. HILLYER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	181.390	201.846
TOTAL PROCUREMENT	49.970	45.904
TOTAL O&M	20.811	11.590
TOTAL OTHER	31.780	31.162
TOTAL ANNUAL LAB	283.951	290.502
TOTAL INHOUSE	151.279	183.444
TOTAL INHOUSE RDT&E	102.713	127.780
ANNUAL OPERATING COST	40.962	45.545

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	PROF	
MILITARY	583	0	29	554	
CIVILIAN	3957	123	1387	2570	
TOTAL	4540	123	1416	3124	

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		REAL PROP	EQUIP
1127016	1155.058	400.259	5120.635	6675.952	226.91	98.172

#### ...MISSION

THE PRINCIPAL NAVY RDT&E CENTER FOR AIR WARFARE SYSTEMS (EXCEPT ANTI-SUBMARINE WARFARE SYSTEMS) AND MISSILE WEAPON SYSTEMS, AND THE NATIONAL RANGE/FACILITY FOR PARACHUTE TEST AND EVALUATION.

#### ...CURRENT IMPORTANT PROGRAMS

ANTI-AIR MISSILES AIM-9H/L/M SIDEWINDER, AIM/RIM-7F/M SPARROW, MSL COMPT ANTI-SURFACE WEAPONS A/RGM-84 HARPOON, FAE, ADVANCED TACTICAL MISSILES ELECTRONIC WARFARE AGM-88 HARM ANTI-RADIATION MISSILE, SIMULATION, EQUIP TAC A/C SYSTEMS INTEGRATION A-7E, A-6E, AV-8B, F/A-18, A/C SURV/VULN T AND E AIR/SURFACE-LAUNCHED WPNS, TACTICS, A/C WPN SYSTEMS, SUB/SYSTEMS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCT IN-HOUSE RESEARCH AND ESTABLISH AND MAINTAIN PRIMARY IN-HOUSE DEVELOPMENT, TEST, EVALUATION, AND IN-SERVICE ENGINEERING SUPPORT FOR SPECIFIC NAVY, MARINE CORPS AND JOINT SERVICE PRODUCTS SUCH AS ANTI-AIR MISSILES, ANTI-SURFACE WEAPONS, DEFENSE PENETRATION SYSTEMS, INTEGRATED TACTICAL AIRCRAFT SYSTEMS. FACILITIES INCLUDE MICHELSON LAB, ELECTRONIC WARFARE THREAT ENVIRONMENT SIMULATOR, SOLID STATE DEVICES LAB, ENCOUNTER SIMULATION LAB, PROPULSION RESEARCH LAB, MICROELECTRONICS FACILITY, EXPLOSIVES R&D FACILITY, GROUND AND AIRCRAFT RANGES, EXTERIOR AND TERMINAL BALLISTICS RANGES, ARMITAGE AIR FIELD, AIRCRAFT SURVIVABILITY FACILITY, SUPERSONIC TEST TRACKS, MICROWAVE ANECHOIC FACILITIES, AND LASER LAB.

INSTALLATION: WEAPONS EVALUATION FACILITY

ALBUQUERQUE, N.M.

CO. CAPT. D. R. WEICHMAN

TECH. DIR. DR E. G. GREWIS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	2.193	2.839
TOTAL PROCUREMENT	0.888	0.950
TOTAL OEM	1.493	1.539
TOTAL OTHER	2.973	3.203
TOTAL ANNUAL LAB	7.547	8.531
TOTAL INHOUSE	6.741	7.682
TOTAL INHOUSE RDT&E	1.732	2.345
ANNUAL OPERATING COST	1.103	1.228

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	PROF	
MILITARY	147	1	15	132	
CIVILIAN	107	2	39	68	
TOTAL	254	3	54	200	

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)				COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
7	0.400	53.592	94.926	148.918	9.60	0.998

...MISSION

MISSION-PERFORM TEST, EVALUATION AND TECHNICAL SUPPORT FOR USN NUCLEAR WEAPON SYSTEMS. PLAN AND COORDINATE THE NAVY NUCLEAR WEAPONS SAFETY PROGRAM. PROVIDE TECHNICAL ASSISTANCE AND ADVICE TO PRESIDENT, BOARD OF INSPECTION AND SURVEY. ACT AS SUB-AREA COORDINATOR FOR COMELEVEN.

...CURRENT IMPORTANT PROGRAMS

PARTICIPATE IN THE DOE-DOO DEVELOPMENTAL PROGRAM FOR TOMAHAWK.  
 PARTICIPATE IN THE DOE-DOO DEVELOPMENTAL PROGRAM FOR STANDARD MISSILE-2.  
 PARTICIPATE IN DEVELOPING A NUC WPNS CAPABILITY FOR THE F/A-18 AIRCRAFT.  
 PARTICIPATE IN A CONCEPTIONAL STUDY FOR A NEW ASW WEAPON SYSTEM.  
 PARTICIPATE IN THE JOINT USN/USAF AIRBORNE LASER DEVELOPMENT PROGRAM.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CAPABILITIES-ON USN NUCLEAR WEAPON SYSTEMS: CONDUCT SAFETY STUDIES, SAFETY ANALYSES, SURVIVABILITY AND EFFECTS STUDIES, ANALYZE ACCIDENTS/INCIDENTS, UNSATISFACTORY REPORTS, AND CAPABILITY INSPECTION REPORTS. DEVELOP EMERGENCY DESTRUCT/DENIAL/DISABLE PROCEDURES. ASSIST ON INSPECTION AND SURVEY OF NUCLEAR CAPABLE SHIPS AND AIRCRAFT. DEVELOP AIRCRAFT LOADING MANUALS AND CHECKLISTS. PARTICIPATE IN DOE-DOO DEVELOPMENT EFFORT. EVALUATE AIRCRAFT SUSPENSION, RELEASE AND ARMING SYSTEMS, BOMB DUMMY UNITS, LOADING, HANDLING AND TRAINING SHAPES. DEVELOP MILITARY CHARACTERISTICS, INTERFACE DRAWINGS, SAFETY AND ENVIRONMENTAL CRITERIA. REPRESENT USN AND/OR CONDUCT VARIOUS MEETINGS OR SPECIAL DEVELOPMENT OR APPLICATION STUDIES. ACT AS DOE, DNA, AND OTHER SERVICE CO-TACT. DEVELOP A-D/OR REVIEW TECHNICAL PUBLICATIONS. SUPPORT NLU JOINT NUC WPNS PUBLICATION SYSTEM.

INSTALLATION: AERO PROPULSION LABORATORY

WPAFB, OH.

CDR. COL. GEORGE E. STRAND

CH. SCI. LTCOL CHARLE E. SIMON (ACTG)

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	90.316	99.193
TOTAL PROCUREMENT	0.000	0.000
TOTAL OEM	0.000	0.000
TOTAL OTHER	0.988	1.057
TOTAL ANNUAL LAB	91.298	100.250
TOTAL INHOUSE	15.025	15.392
TOTAL INHOUSE RDT&E	14.037	14.335
ANNUAL OPERATING COST	3.498	3.828

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	51	3	32		19
CIVILIAN	383	28	213		170
TOTAL	434	31	245		189

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		OTHER	REAL PROP
40	229.490	41.784	105.665	376.939	56.10	193.130

#### ...MISSION

PLAN, FORMULATE AND EXECUTE RESEARCH AND EXPLORATORY, ADVANCED AND PROTOTYPE DEVELOPMENT PROGRAMS IN AIR-BREATHING PROPULSION, AEROSPACE POWER GENERATION AND DISTRIBUTION, AIRCRAFT FUELS, FUEL AND LUBRICATION SYSTEMS, AND FIRE PROTECTION. PROVIDE OPERATIONAL AND SYSTEMS SUPPORT.

#### ...CURRENT IMPORTANT PROGRAMS

ADVANCED TURBINE ENGINE TECHNOLOGY DEMONSTRATORS  
OPTIMUM AVAILABILITY AND COST OF AVIATION TURBINE FUELS  
VARIABLE CYCLE ENGINES FOR MULTI-MISSION AIRCRAFT  
RAMJETS FOR TACTICAL AND STRATEGIC MISSILES  
AIRBORNE HIGH POWER GENERATION AND CONDITIONING

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

TURBINE ENGINE CONTROL TEST FAC, BATTERY DEVELOPMENT AND TEST FAC, MHD GENERATOR, LUBRICANT RIGS, SEAL TEST RIGS, BEARING RIGS, FUEL HANDLING FAC, FIRE RESEARCH LAB, COKER LAB, FUEL ANALYSIS LAB, COMBUSTION FAC, ROTOR TEST FAC, 6 SEA LEVEL TEST STANDS TO 60,000 LB THRUST, 2 TURBINE ENGINE ALTITUDE CELLS TO 5,000 LB THRUST-MACH 1.5-50,000 FT, 2 PROPELLER WHIRL RIGS TO 10,000 HP, DIRECT CONNECT RAMJET TEST FAC, RAMJET COMPONENTS LAB, ELECTRO AERODYNAMIC LASER, HIGH TEMPERATURE TURBINE COMPONENT TEST FAC, SALT EROSION RIG, AIRCRAFT ELECTRICAL POWER FAC WITH THREE 350 HP DRIVE SOURCES AND AIRCRAFT SIMULATORS, VACUUM CHAMBERS, SUPERCUNDUCTIVITY LAB, HIGH POWER LAB TO 5 MW, THERMAL ENERGY STORAGE LAB, HYDRAULICS LAB, PLASMA PHYSICS LAB, HOLOGRAPHY LAB, COMPRESSOR TEST FAC, SOLAR CELL LAB

INSTALLATION: AEROSPACE MEDICAL RESEARCH LABORATORY

WPAFB, OH.

CDR. COL. RUY L. DEHART

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	15.297	16.313
TOTAL PROCUREMENT	0.000	0.000
TOTAL OEM	0.000	0.000
TOTAL OTHER	0.000	0.000
TOTAL ANNUAL LAB	15.297	16.313
TOTAL INHOUSE	6.561	6.614
TOTAL INHOUSE RDT&E	6.561	6.614
ANNUAL OPERATING COST	0.750	0.750

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	135	16	56	79
CIVILIAN	154	22	94	60
TOTAL	289	38	150	139

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	UTHER			
30	73.614	5.247	87.764	166.625	21.20	27.835

#### ...MISSION

ACCOMPLISH BEHAVIORAL AND BIOMEDICAL RESEARCH AND DEVELOPMENT TO DEFINE HUMAN TOLERANCE AND DEGRADATION OF HUMAN PERFORMANCE UNDER THE CONDITION OF ENVIRONMENTAL STRESS ASSOCIATED WITH AEROSPACE OPERATIONS AND PROVIDE SUPPORT TO SYSTEM DEVELOPMENT IN THE ABOVE AREAS.

#### ...CURRENT IMPORTANT PROGRAMS

DEFINE TOXIC HAZARDS, ENVIR POLLUTION EFF OF MISSILE OPS-PROPELLANT TEST.  
 DEFINE EFFECT OF CREW PERF ON MANNED WEAPON SYSTEM EFFECTIVENESS.  
 DEV OPTICAL COUNTERMEASURE MECHANISMS FOR ADV DEV PROGRAM APPLICATIONS.  
 EFF OF OPERATIONAL NOISE AND VIBRATION ENVIRONMENTS ON AF PERSONNEL-OPS.  
 DEVELOP HUMAN PERFORMANCE ESTIMATES IN CHEMICAL WARFARE ENVIRONMENTS.

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

HUMAN DECELERATION SYSTEM TO SIMULATE THE COMPLEX ACCELERATION ENVIRON ASSOCIATED WITH EJECTION AND CRASH LANDING. DYNAMIC ENVIRONMENT SIMULATOR A SIX DEGREE OF FREEDOM MAN-RATED CENTRIFUGE USED TO SIMULATE SUSTAINED ACCELERATIONS SUCH AS THOSE ENCOUNTERED IN AIR COMBAT MANEUVERING. THOMAS DOMES-EIGHT ALTITUDE EXPOSURE CHAMBERS TO SIMULATE EXOTIC ARTIFICIAL ATMOSPHERIC CONDITIONS. HUMAN ENGINEERING SYSTEMS SIMULATOR FACILITY USED TO PERFORM REAL-TIME MAN-IN-THE-LOOP EXPERIMENTS AND DATA ANALYSIS. ANECHOIC AND REVERBERATION CHAMBERS TO ENABLE EXPERIMENTAL INVESTIGATIONS OF POTENTIALLY HAZARDOUS NOISE TO DETERMINE EFFECTS ON BODY FUNCTION AND PERFORMANCE. VIVARIUM-LABORATORY RESEARCH ANIMAL FACILITY.



INSTALLATION: ARMAMENT DIVISION

EGLIN AFB, FL.

CDR. MAJ. ROBERT M. BOND

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	372.980	408.432
TOTAL PROCUREMENT	789.963	513.771
TOTAL U&M	7.765	7.531
TOTAL OTHER	77.819	80.904
TOTAL ANNUAL LAB	1,248.527	1,010.638
TOTAL INHOUSE	231.403	245.327
TOTAL INHOUSE RDT&E	147.406	160.856
ANNUAL OPERATING COST	54.537	49.192

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	4646	28	851	3795
CIVILIAN	1743	37	801	942
TOTAL	6389	65	1652	4737

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		OTHER	REAL PROP
464219	320.295	976.427	10639.000	11935.722	290.40	163.727

#### ...MISSION

RESPONSIBLE FOR AIR-LAUNCH TACTICAL AND AIR DEF MSLS, NONNUC MUN, GUIDED WEAP, ELEC-OPTICAL WEP DEL SYS, A/C GUN, AMMO, RELATED EQUIP. RESPON FOR BASIC TECHNOLOGY, DEVEL, TEST INITIAL ACQ AND DEPLOY. TEST MISSION INCL LEAD CENTER IN MUN, EMW, INTRUSION/INTERDICTION, AND CLIMATIC SIMULATION

#### ...CURRENT IMPORTANT PROGRAMS

WIDE AREA ANTI-ARMOR MUNTION  
PRECISION GUIDANCE MUNTIONS  
ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE  
LOW ALTITUDE AIRFIELD ATTACK SYSTEM  
COMBINED EFFECTS MUNTION

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

SCIENTIFIC/ENGINEERING PERSONNEL AND LABORATORY FACILITIES CAPABLE OF EXPLOR, ADV, ENG DEV OF NONNUCLEAR MUNITIONS EQUIP. ARMAMENT SYSTEMS TEST ENVIRONMENT COVERING 725 SQ MI WITH LARGE ADJACENT WATER AREA HAS 28 TEST AREAS WITH INSTRUMENTED FACILITIES INCLUDING PRECISION TRACKING RADAR AND PHOTO-OPTICS IS USED FOR MUNTION S TESTING AND ELECTROMAGNETIC TEST ENVIRONMENT AN INSTRUMENTED COMPLEX OF THREAT SYSTEMS FOR EVAL WPN SYST EFFECTIVENESS PROVIDES A REALISTIC ENVIRONMENT FOR TESTING A WPN SYST AGAINST AN ACTIVE DEFENSE SYSTEM A CLIMATIC LAB CAPABLE OF TESTING COMPLETE WPN SYSTEMS, A COMPUTER SCIENCE LAB, A PHYSICAL SCIENCE LAB, A PHOTO LAB, AN INSTRUMENTATION/DESIGN/FABRICATION FACILITY, AERO-BALLISTIC RESEARCH FACILITY, HIGH EXPLOSIVE R/D FACILITY, A MISSILE SIMULATION AND TEST LABORATORY.

INSTALLATION: ARNOLD ENGINEERING DEVELOPMENT CENTER

TULLAHOMA, TN.

CDR. COL. MICHAEL H. ALEXANDER CH. SCI. DR. BRUCE REESE

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	124.567	137.488
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.022	0.021
TOTAL UTHER	6.872	9.588
TOTAL ANNUAL LAB	131.461	147.097
TOTAL INHOUSE	16.375	14.213
TOTAL INHOUSE RDT&E	14.429	12.093
ANNUAL OPERATING COST	29.879	31.983

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	87	5	48	39
CIVILIAN	136	5	43	93
TOTAL	223	10	91	132

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)
	LAB ADMIN OTHER TOTAL	REAL PROP EQUIP
39081	1092.409 182.573 561.154 1836.136	378.77 60.850

...MISSION

PRIMARY MISSION IS TO SUPPORT THE TIMELY ACQUISITION OF SUPERIOR AEROSPACE SYSTEMS BY CONDUCTING RESEARCH AND DEVELOPMENT TESTS IN GROUND ENVIRONMENTAL TEST FACILITIES WHICH SIMULATE THE ACTUAL CONDITIONS THAT THE HARDWARE WILL EXPERIENCE IN PERFORMING ITS MISSION

...CURRENT IMPORTANT PROGRAMS

CONTINUED F/16 STORE SEPARATION TESTS AND ENGINE COMPONENT IMPROVEMENT CONDUCTED DEVELOPMENT TESTS OF F/16, M/X, IUS, SPACE DEFENSE SYSTEMS CONDUCTED ALUM ENGINE QUALIFICATIONS TESTS AND INLET-ENG COMPATIBILITY CONTINUED EXTENSIVE MINUTEMAN PQA AND AGING AND SURVEILLANCE TESTS OTHER SIGNIF TESTS: F/101 DFE, ABRES, SPACE SHUTTLE, BIRD IMPACT, ROCKT PLUME

...FUNCTIONS/EQUIPMENT/CAPABILITIES

AEDC IS COMPRISED OF ABOUT 40 TEST UNITS, INCLUDED ARE WIND TUNNELS WITH TEST SECTIONS TO 16 FT SQ AND SPEEDS FROM SUBSONIC TO MACH 72; TURBINE ENGINE TEST CELLS WHICH PROVIDE SIMULATION TO MACH 3, ROCKET TEST CELLS, THE LARGEST RATED AT .5 MILLION LBS THRUST AT ALTITUDE; SPACE SIMULATION CHAMBERS TO 42 FT DIA AND 82 FT HIGH; HYPERBALLISTIC RANGES; DUST AND SNOW EROSION FACILITY; BIRD IMPACT FACILITY; SEVERAL CAPTIVE TRAJECTORY SYSTEMS. THESE FACILITIES HAVE ESSENTIALLY SUPPORTED THE DEVELOPMENT AND QUALIFICATION OF EVERY MAJOR AERONAUTICAL, MISSILE, AND SPACE SYSTEM DEVELOPMENT SINCE 1954. BY PLANNING FOR AN ADEQUATE GROUND ENVIRONMENTAL TEST PROGRAM IN THESE FACILITIES, DEVELOPMENT PROGRAM MANAGERS CAN ASSURE THAT SYSTEM DEFICIENCIES ARE FOUND EARLY, PREVENTING COST AND SCHEDULE OVERRUNS

INSTALLATION: AVIONICS LABORATORY

WPAFB, OH.

CDR. COL. R. F. LOPINA

CH. SCI. DR. J. C. RYLES

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RD&E	139.592	146.448
TOTAL PROCUREMENT	0.070	0.100
TOTAL G&M	0.500	0.600
TOTAL OTHER	3.129	3.340
TOTAL ANNUAL LAB	143.291	150.488
TOTAL INHOUSE	31.991	32.279
TOTAL INHOUSE RD&E	28.862	28.939
ANNUAL OPERATING COST	4.326	4.076

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	170	8	108		62
CIVILIAN	774	32	427		347
TOTAL	944	40	535		409

ACRES	SPACE AND PROPERTY			COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP EQUIP
	LAB	ADMIN	UTHER		
229	250.901	8.775	412.829	672.505	24.06 68.460

#### ...MISSION

MAINTAINS AN AVIONICS TECHNOLOGY BASE THROUGH RESEARCH AND EXPLORATORY AND ADVANCED DEVELOPMENT. DEVELOPS AND DEMONSTRATES COST-EFFECTIVE AVIONICS CONCEPTS TO REDUCE ACQUISITION AND OPERATING COST AND IMPROVE OPERATIONAL CAPABILITIES. SUPPORTS OPERATIONAL CMDS AND PRODUCT DIVISIONS.

#### ...CURRENT IMPORTANT PROGRAMS

GPS USER EQUIPMENT - ANTI-JAMMING TECH AND PERFORMANCE EVALUATION  
 VERY HIGH SPEED INTEGRATED CIRCUITS TECHNOLOGY  
 ELECTRO-OPTICAL COUNTERMEASURES-TECHNOLOGY TO DEFEAT OPTICAL THREATS  
 DIGITAL AVIONICS INFORMATION SYSTEM-INTEGRATED SYS ARCHITECTURE  
 ELECTRONICALLY AGILE RADAR-MULTIMODE RADAR FOR STRATEGIC APPLICATIONS

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

MAINTAINS A WIDE RANGE OF AVIONICS SIMULATION, EVALUATION, DESIGN AND FABRICATION CAPABILITIES ACROSS THE BROAD MISSION RANGE. AVSAIL IS FOR ANALYSIS AND SIMULATION OF MULTIPLEX DIGITAL AVIONICS CONCEPTS, CSEL TOGETHER WITH IMAGE PROCESSING FAC AND SATCOM R/T CAN EVALUATE A-A, A-G AND SATELLITE DATA LINK PERFORMANCE. CAU/IC FAC IS USED TO DESIGN AND FABRICATE SPECIALIZED INTEGRATED/HYBRID CIRCUITS AND PRINTED WIRING BOARDS. DEES, EDE AND EWAC CAN SIMULATE REAL WORLD SIGNAL/JAMMING ENVIRONMENT FOR EVALUATION OF ELECTRONIC WARFARE SYSTEMS. TARGETING SYS CHARACTERIZATION FAC CAN CORRELATE E-O SYSTEMS PERFORMANCE WITH MEASURED WEATHER CONDITIONS. DYNAMIC ANALYZER EVALUATES RECON SENSORS IN REALISTIC FLIGHT ENVIRONMENT. LABS ARE MAINTAINED FOR EVALUATION OF AIRBORNE AND SPACECRAFT SENSORS AND COMPONENTS FROM OPTICAL TO RADIO FREQUENCIES.

INSTALLATION: EASTERN SPACE & MISSILE CENTER

PATRICK AFB, FL.

CDR. COL JOHN S. BURKLUND

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	0.000	0.000
TOTAL PROCUREMENT	6.008	4.594
TOTAL O&M	176.248	183.781
TOTAL OTHER	2.403	2.403
TOTAL ANNUAL LAB	184.659	190.778
TOTAL INHOUSE	53.592	47.625
TOTAL INHOUSE ROT&E	0.000	0.000
ANNUAL OPERATING COST	16.824	13.355

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	942	2	120	822
CIVILIAN	1196	1	79	1117
TOTAL	2138	3	199	1939

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
18133	129.369	1213.525	4510.214	5853.108	370.31	406.696

#### ...MISSION

SUPPORT OF LAUNCH PROGRAMS AND AIR/GROUND-LAUNCHED MISSILE SYSTEMS FROM CCAFS AND KSC, OPERATION OF THE ARIS IN SUPPORT OF JCS REQUIREMENTS, SUPPORT OF AEROSPACE DEFENSE COMMAND ON-ORBIT TRACKING REQUIREMENTS AND SUPPORT OF SPECIAL PROJECTS, DOCUMENTED R&D TESTS AND TENANT ACTIVITIES.

#### ...CURRENT IMPORTANT PROGRAMS

FBM PROGRAMS - PUSEIXON, TRIDENT AND CHEVALINE  
MIL SPACE SUPPORT PROGRAMS - TITAN IIIC AND TITAN 340/IUS  
MIL MISSILE SUPPORT PROGRAMS - SRAM/OTGE AND PERSHING  
NASA - THOR/DELTA, ATLAS/CENTAUR AND SPACE SHUTTLE PROGRAMS  
DOD SPACE TRANSPORTATION SYSTEM

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

ETR CAPABILITIES INCLUDE: ASSEMBLY, PRE-LAUNCH TESTING AND LAUNCH PERFORMANCE EVALUATION OF BALLISTIC MISSILES, LAUNCH VEHICLES, SPACE-CRAFT AND SATELLITES TO INCLUDE TRACKING, LONG DISTANCE COMMUNICATIONS, DATA TRANSMISSION, COLLECTION AND REDUCTION. EQUIPMENT AND FACILITIES INCLUDE MAINLAND AND DOWN-RANGE INSTRUMENTATION AND COMMUNICATIONS, INSTRUMENTED SHIPS, SCIENTIFIC DATA PROCESSING EQUIPMENT AND FACILITIES, PHOTO/ELECTRO-OPTICAL SYSTEMS AND SERVICES, MISSILE IMPACT LOCATION SYSTEMS, METEOROLOGICAL WEATHER STATIONS AND EQUIPMENT, AND RANGE TIMING SYSTEMS. EASTERN SPACE AND MISSILE CENTER OPERATES AND MAINTAINS CCAFS, MAINLAND SITES AND DOWN-RANGE STATIONS. SUPPORT FUNCTIONS INCLUDE LAUNCH SUPPORT SERVICES AND OVERALL MANAGEMENT OF THE ETR, INCLUDING CONTRACTOR OPERATIONS, PLANT ENGINEERING, LABS, SHOPS AND OTHER SPECIAL SERVICES.

INSTALLATION: ENGINEERING & SERVICES CNTR / RD

TYNDALL AFB, FL.

COR. COL. JOSEPH S. PIZZUTO

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	6.173	8.165
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.481	0.500
TOTAL OTHER	1.191	1.250
TOTAL ANNUAL LAB	7.845	9.915
TOTAL INHOUSE	1.968	2.370
TOTAL INHOUSE RDT&E	0.301	0.620
ANNUAL OPERATING COST	0.150	0.150

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	89	5	45	44
CIVILIAN	15	2	11	4
TOTAL	104	7	56	48

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP.	EQUIP
3	4.981	2.400	9.751	17.132	1.60	1.202

#### ...MISSION

AIR FORCE LEAD AGENCY FOR RESEARCH, DEVELOPMENT, TEST & EVALUATION IN THE AREAS OF CIVIL ENGINEERING & ENVIRONMENTAL QUALITY. FOCAL POINT FOR FACILITIES ENERGY ROTE.

#### ...CURRENT IMPORTANT PROGRAMS

RAPID RUNWAY REPAIR AND NEW AIRCRAFT OPERATIONAL SURFACES  
ENVIRONMENTAL QUALITY AND ASSESSMENT RESEARCH AND DEVELOPMENT  
SURVIVABILITY/VULNERABILITY OF FACILITIES  
ENERGY CONSERVATION AND ALTERNATE ENERGY SOURCES  
FIRE PROTECTION

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

ESI HAS ACCESS TO LABORATORIES AND TEST FACILITIES TO PERFORM QUALITATIVE AND QUANTITATIVE MEASUREMENTS ON CORROSION, ENGINEERING MATERIALS, PAVEMENTS, SOIL MECHANICS, AIR QUALITY, WASTE TREATMENT PROCESSES, FIRE EXTINGUISHING AGENTS, AND HARDENED AIRCRAFT SHELTERS. EQUIPMENT INCLUDES FLAME AND ABSORPTION SPECTROPHOTOMETERS, WATER/WASTE STANDARD METHODS TEST EQUIPMENT, AND A MICROPROCESSOR DEVELOPMENT SYSTEM. REMOTE TERMINAL ACCESS IS AVAILABLE TO A CDC 6600 SCIENTIFIC COMPUTER WITH OFF-LINE PLOTTING CAPABILITY. A RUNWAY REPAIR/ALTERNATE LAUNCH SURFACE TEST SITE HAS A 200 X 600 FOOT TYPICAL RUNWAY SECTION.

INSTALLATION: FLIGHT DYNAMICS LABORATORY

WPAFB, OH.

CDR. COL. R. C. BARLOW

DEP. DIR. MR. K. I. COLLIER

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	93.702	100.330
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.383	0.485
TOTAL OTHER	3.094	13.111
TOTAL ANNUAL LAB	97.179	113.926
TOTAL INHOUSE	37.894	36.916
TOTAL INHOUSE RDT&E	34.597	33.522
ANNUAL OPERATING COST	13.177	13.836

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	198	11	115		93
CIVILIAN	722	27	443		279
TOTAL	920	38	558		362

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
92	518.859	5.408	143.317	667.584	26.18	50.516

#### ...MISSION

PLAN AND EXECUTE USAF RESEARCH EXPLORATORY AND ADVANCED DEV PROGRAMS FOR AEROSPACE FLT VEHICLE STRUCTURES AERODYNAMICS FLT CONTROL VEHICLE DYN AND VEHICLE EQUIP. LEAD AFSC LAB FOR EXPER FLT VEHICLES. AFSC FOCAL PT FOR NONNUCLEAR SURVIVABILITY PROG. EVALUATE CONTRACTOR J R AND D PROG.

#### ...CURRENT IMPORTANT PROGRAMS

ADVANCED COMPOSITE STRUCTURES  
ADVANCED FIGHTER TECHNOLOGY INTEG  
COMBINED ENVIRONMENT RELIABILITY TEST  
DIGITAL FLIGHT CONTROL SYSTEM  
FLIGHT VEHICLE TECHNOLOGY

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

STRUCTURAL TESTING OF F-15 VERTICAL TAIL AND F-16 HORIZONTAL TAIL WITH PROGRAM CONTROLLED SIMULATION OF FORCE AND THERMAL FLT ENVIRONMENTS WERE ACCOMPLISHED IN THE STRUCTURES TEST FACILITY. LANDING GEAR TEST FACILITY, WHICH DYNAMICALLY SIMULATES LANDING GEAR COMPONENT PERFORMANCE, PERMITTED INITIATION OF GETOL, TEST FIXTURE DEVELOPMENT, TEST/EVALUATION. DEVELOPMENT OF CONTROL LOSS FOR AFTI-16 AND THE EVALUATION AND VALIDATION OF IFFC-1 CONCEPT FOR F-15 WERE PERFORMED IN THE ENGINEERING FLT SIMULATION FAC. BALLISTIC RANGES ASSESSED VULNERABILITY OF AIRCRAFT DRY BAYS TO MISSILE WARHEAD FRAGMENT IMPACT BY SIMULATING THREAT FUEL STRUCTURAL AND AERODYNAMIC ENVIRONMENTS. THE FAVORABLE INTERFERENCE CONCEPT WAS EXPERIMENTALLY VERIFIED.

INSTALLATION: FLIGHT TEST CENTER

EDWARDS AFB, CA.

COR. BG. P. J. CONLEY, JR.

TECH. DIR. MR. F. N. STOLIKER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	93.354	100.274
TOTAL PROCUREMENT	1.557	0.832
TOTAL O&M	8.910	11.483
TOTAL OTHER	52.683	50.193
TOTAL ANNUAL LAB	156.504	162.782
TOTAL INHOUSE	119.136	131.687
TOTAL INHOUSE RDT&E	70.324	77.571
ANNUAL OPERATING COST	42.830	45.057

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF.
MILITARY	3461	1	136	3325
CIVILIAN	1675	3	194	1481
TOTAL	5136	4	330	4806

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
227071	102.125	263.504	6737.323	7102.952	279.06	124.052

...MISSION

TESTS MANNED/UNMANNED AEROSPACE VEH, INCL ALL-WEATHER. FLT EVAL AEROSPACE RSCH VEH AND DEV TEST AERODYNAMIC DECELERATORS. USAF TEST PILOT SCHOOL. SUPPORTS USAF, DOD, GOV, FOREIGN AND CONTRACTOR TEST/EVAL. UTAH TEST AND TRAINING RANGE AND EDWARDS FLIGHT TEST RANGE

...CURRENT IMPORTANT PROGRAMS

ALCM DT AND E  
F-16 DT AND E  
A-10 DT AND E  
F-15 DT AND E  
B-1 DT AND E

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FACILITIES AND EQUIP ARE AVAILABLE FOR COMPLETE RANGE OF SERVICES TO CONDUCT DT AND E FLT TESTS OF AERONAUTICAL SYS OVER LONG DISTANCES, TO CONDUCT FLT EVAL AND RECOVER RSCH VEH, AND TO TRAIN TEST PILOTS. FLIGHT TEST MISSION CONTROL COMPLEX, ENGRG FACILITIES, REAL-TIME INSTRUMENTED RANGES, DATA COLLECTION, REDUCTION AND ANALYSIS FAC, PHOTO/TV, ACFT/ENGINE MAINT, TEST EQUIP, ELECTRONIC SHOPS, AND DRY LAKES FOR RECOVERY AND EMERGENCY LANDINGS PROVIDE SUPPORT FOR ALL PROGRAMS. OTHER FACILITIES ARE PRECISION IMPACT GUNNERY/BOMBING, INFRARED/PHOTO RESOLUTION, RADAR FIDELITY, TACTICAL AND OPTICAL RANGES, ENGR SIMULATOR, MUNITIONS STORAGE AND CHECKOUT AND CONTRACTOR-ASSIGNED HANGARS, SHOPS, OFFICE SPACE, ETC.

INSTALLATION: FRANK J SEILER RESEARCH LABORATORY

USAF ACADEMY, CO.

CDR. LT. COL. W. D. SIURU

CH. SCI. (ACTING) CAPT. D. R. STEVENS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	0.638	0.651
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	0.620	0.657
TOTAL ANNUAL LAB	1.258	1.308
TOTAL INHOUSE	1.258	1.308
TOTAL INHOUSE RDT&E	0.638	0.651
ANNUAL OPERATING COST	0.050	0.055

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	24	17	21	3
CIVILIAN	9	1	6	3
TOTAL	33	18	27	6

ACRES	SPACE AND PROPERTY			COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
1	19.003	1000.000	0.000	1019.003	1.72	1.689

#### ...MISSION

CONDUCT RESEARCH IN AEROSPACE MECHANICS, APPLIED MATHEMATICS & CHEMISTRY. ENCOURAGE & SUPPORT ACADEMY FACULTY & CADET RESEARCH BY DIRECT PARTICIPATION. MONITOR FACULTY CONSULTANT PROG, SUMMER RSCH PROG, FOCAL POINT FOR USAF ACADEMY RESEARCH PROPOSED TO DL RESEARCH & TECHNOLOGY LABS (AFSC).

#### ...CURRENT IMPORTANT PROGRAMS

BATTERY RESEARCH & ELECTROCHEMISTRY OF MOLTEN SALTS, ENERGETIC MATERIALS RESEARCH, CHEMICAL MOLECULAR DYNAMICS OF LASERS AND PLUMES. APPLIED OPERATIONS RESEARCH, INERTIAL GUIDANCE TESTING, ADVANCED SENSOR DEVELOPMENT, MICROPROCESSOR RESEARCH. FLUID DYNAMICS, UNSTEADY AERODYNAMICS.

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

MOLTEN SALT MELT STRUCTURE, CONDUCTIVITY & ELECTRODE REACTIONS. EXPLOSIVE & PROPELLANT SYNTH, DECOMPOSITION MECHANISMS & DETONATION PHENOMENA. GENERATION, MSMT, SPECTROSCOPY & MC CALC. OF EXCITED STATE SPECIFS. IR, UV, NMR, EPR, X-RAY & MASS SPECTS, GAS & LIQ CHROMATOGRAPHS, ELECTRON MICROSCOPE, SPECIAL SPECTROMETERS & CONDUCTIVITY EQUIP., ASSOC FACILITIES FOR WET CHEMISTRY. ADVANCED ANALYSIS & EVALUATION TECHNIQUES FOR INERTIAL GUIDANCE SENSORS USING 2-AXIS TEST TABLE (GYRO), AUTOMATIC AZIMUTH ALIGNMENT EQUIPMENT & ELECTRONIC CONTROL EQUIP FOR 50 SERIES INERTIAL DEVICES LOCATED IN A CLASS 1000 CLEAN LAB ON 80 TON AIR SUPPORTED STABLE PLATFORM. PDP 11/45 MINI COMPUTER & SOFTWARE TO AUTOMATE GYRO RESEARCH. AERODYNAMIC RESEARCH IN USAFA SUBSONIC & TRANSONIC WIND TUNNELS, HOLOGRAPHIC & OTHER OPTICAL FLOW VISUALIZATION INSTRUMENTATION.



INSTALLATION: GEOPHYSICS LABORATORY

HANSCOM AFB, MA.

CDR. COL. JAMES E. BAKER

CH. SCI. DR. JOHN N. HOWARD

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	51.065	55.390
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	0.000	0.000
TOTAL OTHER	9.643	10.580
TOTAL ANNUAL LAB	60.708	65.970
TOTAL INHOUSE	30.143	31.536
TOTAL INHOUSE RDT&E	26.000	27.820
ANNUAL OPERATING COST	6.000	6.600

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	120	7	41		79
CIVILIAN	498	74	271		227
TOTAL	618	81	312		306

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
368	391.903	15.006	25.883	432.792	9.71	29.700

...MISSION

CONDUCTS AND SUPPORTS AF RELEVANT RESEARCH AND EXPLORATORY DEVELOPMENT IN ENVIRONMENTAL AND PHYSICAL SCIENCES WITH MAJOR EMPHASIS ON GEOPHYSICS. ALSO CONDUCTS AND SUPPORTS SPECIFICALLY ASSIGNED ADVANCED DEVELOPMENT EFFORTS.

...CURRENT IMPORTANT PROGRAMS

SPACECRAFT CHARGING TECHNOLOGY  
SURFACE WEATHER OBSERVING AUTOMATION  
STRATOSPHERIC ENVIRONMENTAL IMPACT ASSESSMENTS  
OPTICAL, INFRARED AND UV BACKGROUNDS FOR SURVEILLANCE SYSTEMS  
GEOMETRIC AND GEOKINETIC EFFECTS ON MISSILE CEP

...FUNCTIONS/EQUIPMENT/CAPABILITIES

CONDUCTS RESEARCH AND TECHNICAL DEVELOPMENT IN TERRESTRIAL SCIENCES, METEOROLOGY, AERONOMY, AND OPTICAL, SPACE AND SOLAR PHYSICS RELATING TO AIR FORCE NEEDS. EQUIPMENT AND FACILITIES INCLUDE RADIO TELESCOPES FOR SOLAR RESEARCH; ONE C-130 AIRCRAFT FOR METEOROLOGICAL RESEARCH; ROCKET AND BALLOON LAUNCH FACILITIES; TWO KC-135 AIRCRAFT FOR OPTICAL, UPPER ATMOSPHERIC AND NEAR EARTH SPACE STUDIES; AND TWO CDC 6600 COMPUTER SYSTEMS.

INSTALLATION: HUMAN RESOURCES LABORATORY

BROOKS AFB, TX.

CDR. COL. RONALD H. TERRY

VICE CDR. COL. KENNETH E. STOUT

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	22.477	19.017
TOTAL PROCUREMENT	0.120	0.000
TOTAL O&M	0.930	0.984
TOTAL OTHER	2.636	2.821
TOTAL ANNUAL LAB	26.163	22.822
TOTAL INHOUSE	10.728	11.743
TOTAL INHOUSE RDT&E	8.077	8.913
ANNUAL OPERATING COST	1.061	1.489

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	127	12	84		43
CIVILIAN	238	42	144		94
TOTAL	365	54	228		137

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)				TOTAL	REAL PROP	EQUIP
	LAB	ADMIN	OTHER				
13	76.369	49.759	54.680	180.808	5.48	33.182	

#### ...MISSION

PRINCIPAL AFSC ORGANIZATION CHARGED WITH PLANNING AND EXECUTING EXPLORATORY AND ADVANCED DEVELOPMENT PROGRAMS FOR SELECTION, MOTIVATION, TNG, RETENTION, EDUCATION, UTILIZATION AND CAREER DEVELOPMENT OF AF MILITARY PERSONNEL; COMPOSITION OF PERSONNEL FORCE; AND TNG EQUIPMENT:

#### ...CURRENT IMPORTANT PROGRAMS

ADVANCED DEVELOPMENT IN THE USE OF SIMULATION FOR UNDERGRADUATE PILOT AND AEROSPACE CREW TNG. IMPROVED PERSONNEL SELECTION, CLASSIFICATION, EVALUATION AND UTILIZATION TECHNIQUES. HUMAN FACTORS IN DESIGN OF WPN SYSTEMS. DESCRIBING, EVALUATING AND STRUCTURING AF OCCUPATIONS. IMPROVED TECHNICAL TNG THROUGH ADVANCED INSTRUCTIONAL SYSTEMS.

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

OCCUPATIONAL ANALYSIS; PERSONNEL PROCUREMENT, CLASSIFICATION, RETENTION AND SEPARATION; COMPUTER SIMULATION MODELS FOR PERSONNEL SYSTEMS; MAN-POWER REQTS OF AF WEAPONS SYS; TNG TECHNIQUES; DESIGN OF SIMULATORS AND OTHER TRAINING DEVICES; CONDUCT TRNG RESEARCH ASSOCIATED WITH PILOT TRNG USING SOPHISTICATED HIGH-FIDELITY A/C SIMULATORS; ADVANCED INSTRUCTIONAL SYS FOR INDIVIDUALLY PACED COMPUTER AIDED TECH INSTRUCTION; ADVANCED SIMULATOR FOR UPT; ADVANCED INSTRUCTIONAL SYSTEM; SIMULATION AND TRAINING ADVANCED RESEARCH SYSTEM; SIMULATION FOR MAINTENANCE TRAINING. TECHNICAL LIBRARY, PERSONNEL TESTING ROOMS; COMPUTER, UNIVAC 1108 ELECTRONIC DATA PROCESSING SYSTEM WITH 2 CPUS, 16 TAPE DRIVES, 16 DISC DRIVES 21 UNISCOPE INTERACTIVE TERMINALS, GRAPHICS DISPLAY CONSOLE, 2 PRINTERS, CARD READER, CARD PUNCH. LLEC ASSOC TR 48 ANALOG COMPUTER.

# INSTALLATION: MATERIALS LABORATORY

WPAFB, OH.

VACANT

CH. SCI. DR. NORMAN TALLAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	63.389	56.882
TOTAL PROCUREMENT	26.564	56.200
TOTAL O&M	0.000	0.000
TOTAL OTHER	1.204	1.290
TOTAL ANNUAL LAB	91.157	114.372
TOTAL INHOUSE	16.745	18.848
TOTAL INHOUSE RDT&E	15.541	17.558
ANNUAL OPERATING COST	4.846	6.064

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHUS	TOTAL PROF		
MILITARY	54	8	47		7
CIVILIAN	359	56	239		120
TOTAL	413	64	286		127

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER			
15	228.809	39.681	117.009	385.499	23.34	17.041

## ...MISSION

PLAN/EXECUTE EXPLORATORY AND ADVANCED DEVELOPMENT, AND ASSIGNED BASIC RSCH, PRGS. FOR MATERIALS. PROVIDE TECH./MANAGEMENT ASSISTANCE FOR STUDIES, ANALYSES, DEVELOPMENT PLANNING, ACQUISITION, TEST, EVALUATION MOD. AND OPN. OF AEROSPACE SYSTEMS. MANAGE/DIRECT A.F. DIRECT MFG. PROG.

## ...CURRENT IMPORTANT PROGRAMS

ADVANCED DEVELOPMENT OF LASER HARDENED MATERIALS  
MANUFACTURING TECHNOLOGY COST REDUCTION PROGRAM FOR METALS, NONMETALS AND THERMAL PROTECTION MATERIALS FOR REENTRY VEHICLES  
PROPULSION MATERIALS  
SYSTEMS SUPPORT

## ...FUNCTIONS/EQUIPMENT/CAPABILITIES

MATERIALS RESEARCH AND DEVELOPMENT FACILITIES AND CAPABILITIES FOR - AEROSPACE STRUCTURES, THERMAL PROTECTION SYSTEMS FOR BALLISTIC REENTRY VEHICLES AND ENGINES, FLUIDS, LUBRICANTS, FLUID CONTAINMENT, PROPULSION, COATINGS, FIBERS, EM WINDOWS, SENSORS, DISPLAYS, LASER WINDOWS, AND UPT DEVICES, ELECT COMPONENTS, NON-DESTRUCTIVE TESTING, POLYMERS, ADHESIVES, NONMETALLIC MATRIX COMPONENTS, ELASTOMERS, METALS, ALLOYS, METAL COMPOSITES, METAL PROCESSING, INTERMETALLICS, CERAMICS, STATIC AND DYNAMIC BEHAVIOR, JOINING, GRAPHITE, ELECTRONIC, PHYSICAL, CHEMICAL ANALYSIS. OTHER MAJOR MATERIALS FUNCTIONS -MANUFACTURING TECHNOLOGY, SYSTEM APPLICATION, SYSTEM SUPPORT, THERMAL PROTECTION MATERIALS.

INSTALLATION: OFFICE OF SCIENTIFIC RESEARCH

WASHINGTON, D.C.

DIR. DR. LAWRENCE C. KRAVITZ

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	100.130	113.434
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.000	0.000
TOTAL OTHER	1.048	1.121
TOTAL ANNUAL LAB	101.178	114.555
TOTAL INHOUSE	23.282	25.661
TOTAL INHOUSE RDT&E	22.234	24.540
ANNUAL OPERATING COST	0.000	0.000

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	45	7	17		28
CIVILIAN	99	19	23		76
TOTAL	144	26	40		104

ACRES	SPACE AND PROPERTY SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	OTHER		REAL PROP	EQUIP
0	0.000	41.300	1.700	43.000	0.00	0.000

...MISSION

MANAGES THE AF RESEARCH PROGRAM, PREVENTS TECHNOLOGICAL SURPRISE, ASSISTS IN SOLVING TECHNOLOGICAL PROBLEMS, PROVIDES RESEARCH OPTIONS, ENHANCES THE CONTINUED SUPERIORITY OF THE AF OPERATIONAL CAPABILITY, ASSISTS IN TRANSITION OF PRODUCTS OF THAT RESEARCH TO DEVELOPMENT ACTIVITIES.

...CURRENT IMPORTANT PROGRAMS

DIRECTED ENERGY  
STRATEGIC SYSTEMS RESEARCH  
SYSTEMS AUTOMATION  
COMMAND AND CONTROL  
ENERGY EFFICIENT AERONAUTICS

...FUNCTIONS/EQUIPMENT/CAPABILITIES

MANAGE THE AIR FORCE RESEARCH PROGRAM AND SPONSER EXTRAMURAL RESEARCH.

INSTALLATION: ROCKET PROPULSION LABORATORY

EDWARDS AFB, CA.

CDR. COL. WILLIAM F. MORRIS

CH. SCI. DR. RICHARD R. WEISS

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL ROT&E	36.145	38.005
TOTAL PROCUREMENT	0.002	0.205
TOTAL O&M	0.000	0.000
TOTAL OTHER	2.300	2.400
TOTAL ANNUAL LAB	38.447	40.610
TOTAL INHOUSE	13.468	14.169
TOTAL INHOUSE ROT&E	11.166	11.564
ANNUAL OPERATING COST	0.550	0.600

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	176	2	64	112
CIVILIAN	255	13	90	165
TOTAL	431	15	154	277

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)	COST (MILLION \$)
	LAB ADMIN OTHER	TOTAL REAL PROP EQUIP
68345	419.046 86.848 4.780	510.674 125.00 23.487

...MISSION

CONDUCT THE AIR FORCE'S ROCKET PROPULSION EXPLORATORY AND ADV DEVEL PROG RAMS TO PROVIDE ADV TECH FOR FUTURE ICBMS, STRATEGIC AND TACTICAL AIR LA UNCHED MISSILES, SPACE VEHICLES, AND SATELLITES. PROVIDES ROCKET PROPULSION TECHNOLOGICAL SUPPORT TO DOD AND NON-DOD AGENCIES.

...CURRENT IMPORTANT PROGRAMS

PROVIDE REDUCED RISK PROPULSION OPTIONS FOR MX FULL SCALE DEVEL. PROVIDE SOLID ROCKET SIGNATURE, PERFORMANCE, AND ENERGY MGT OPTIONS FOR A/L LAU NCHED MISSILES DEMO 30 TO 50 PERCENT REDUCTION IN COST OF HIGH PRODUCTIO N RATE SOLID ROCKETS. DEMO AN IMPROVED PERFORMANCE KICK MOTOR TECHNOLOGY FOR SPACE APPL. DEMO LONG LIFE MONOPROPELLANT SATELLITE THRUSTERS.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

A PHYSICAL SCIENCE LAB FOR SYNTHESIS, ANALYSIS AND FORMULATION OF NEW PR OPELLANTS. FACILITIES FOR MIXING, CASTING, CURING AND TESTING SOLID ROCK ET MOTORS. A SOLID MOTOR TEST AND EVAL COMPLEX FOR INVESTIGATION OF COMB USTION, AGING, STRUCTURAL INTEGRITY, BALLISTIC PERFORMANCE AND HIGH TEMP COMPONENTS. LAB FOR TESTING SMALL ATTITUDE CONTROL AND SATELLITE PROPUL SION SYSTEMS AND COMPONENTS UNDER SIMULATED SPACE ENVIRONMENTS. ALTITUDE TESTING OF LIQUID AND SOLID ROCKETS UP TO 50,000 POUNDS THRUST. AMBIENT TESTING OF LIQUID OR SOLID ROCKETS UP TO 500,000 POUNDS THRUST. IN-HOUSE ANALYTICAL CAPABILITY FOR DESIGN, ANALYSIS, AND TEST DATA REDUCTION. SHOPS FOR FABRICATING TEST HARDWARE AND TEST SYSTEMS. A FULL SCALE REENTRY NOSETIP TEST FACILITY.

INSTALLATION: ROME AIR DEVELOPMENT CENTER

GRIFFISS AFB, N.Y.

CDR. COL. DONALD J. STUKEL

CH. SCI. DR. JOHN S. BURGESS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	159.571	179.972
TOTAL PROCUREMENT	15.594	5.498
TOTAL O&M	27.244	21.056
TOTAL OTHER	4.155	3.345
TOTAL ANNUAL LAB	206.564	209.871
TOTAL INHOUSE	27.201	28.611
TOTAL INHOUSE RDT&E	23.974	25.166
ANNUAL OPERATING COST	8.832	8.870

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	232	7	109	123
CIVILIAN	1091	56	592	499
TOTAL	1323	63	701	622

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)			TOTAL	REAL PROP	EQUIP	
	LAB	ADMIN	OTHER				
1517	772.193	87.767	168.762	1028.722	30.35	52.996	

#### ...MISSION

CONDUCTS RESEARCH, EXPLORATORY AND ADVANCED DEVELOPMENT, TEST AND SELECTED ACQUISITION PROGRAMS IN SUPPORT OF COMMAND, CONTROL AND INTELLIGENCE -C-CUBED I- ACTIVITIES

#### ...CURRENT IMPORTANT PROGRAMS

FACP AUTOMATION/RADAR INTERNETTING  
MULTI MISSION SPACEBORNE RADAR  
TACTICAL INTELLIGENCE PROCESSING  
COMMUNICATIONS ECCM  
EQUIPMENT/SYSTEM TESTABILITY TECHNIQUES

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRINCIPLE TECHNICAL AREAS ARE COMMUNICATIONS, ELECTROMAGNETIC GUIDANCE AND CONTROL, SURVEILLANCE OF GROUND AND AEROSPACE OBJECTS, INTELLIGENCE DATA COLLECTION AND HANDLING, INFORMATION SYSTEM TECHNOLOGY, IONOSPHERIC PROPAGATION, SOLID STATE SCIENCES, MICROWAVE PHYSICS AND ELECTRONIC RELIABILITY, MAINTAINABILITY AND COMPATIBILITY. MAJOR IN-HOUSE FACILITIES ARE: RECONNAISSANCE EXPLOITATION FACILITY, HIGH POWER FACILITY, DIGITAL COMMUNICATIONS EXPERIMENTAL FACILITY, R AND D COMPUTER FACILITY CONSISTING OF TWO HONEYWELL 6180 COMPUTERS, RELIABILITY ANALYSIS CENTER, RADIATION EFFECTS FACILITY, CARTOGRAPHIC TEST FACILITY, ECCM AND SIGNAL PROCESSING LABORATORY, SOLID STATE DEVICE FAILURE ANALYSIS FACILITY EXPERIMENTAL DEVICE FABRICATION FACILITY, AND AN ELECTROMAGNETIC VULNERABILITY FACILITY FOR WEAPONS TESTING.

INSTALLATION: SCHOOL OF AEROSPACE MEDICINE

BROOKS AFB, TX.

CDR. COL. L. J. ENDERS

DEP. DIR. DR. BILLY E. WELCH

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	16.734	17.219
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	0.000	0.000
TOTAL OTHER	5.770	6.175
TOTAL ANNUAL LAB	22.504	23.394
TOTAL INHOUSE	15.823	16.354
TOTAL INHOUSE RDT&E	10.053	10.179
ANNUAL OPERATING COST	2.000	2.345

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	393	57	109		284
CIVILIAN	273	36	99		174
TOTAL	666	93	208		458

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)				REAL PROP	EQUIP
	LAB	ADMIN	OTHER	TOTAL		
74	363.855	77.980	53.176	495.011	17.58	20.401

#### ...MISSION

CONDUCT EXPLORATORY RESEARCH AND DEVELOPMENT PROGRAMS IN AEROSPACE BIOTECHNOLOGY; INCLUDES LIFE SUPPORT, AEROSP MEDICINE, BIOMEDICAL PROGRAMS AND RADIOBIOLOGY. PROVIDE MEDICAL EVALUATION AND CONSULTATION FOR AIRCREWS TO ASSURE RETENTION OF FLYING STATUS.

#### ...CURRENT IMPORTANT PROGRAMS

CREW READINESS AND CREW PROTECTION TECHNOLOGY FOR ADVANCED SYSTEMS  
MEDICAL AND BIOMEDICAL ASPECTS OF AEROSPACE OPERATIONS  
HEALTH EVALUATION AND RISK TABULATION (HEART)  
RADIOBIOLOGY IN AEROSPACE OPERATIONS  
MODELING BIOLOGICAL SYSTEMS/HAN-ATMOSPHERE ENVIRONMENT INTERACTION

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

RESEARCH IN AEROSP MEDICAL PROBLEMS, LIFE SUPPORT, ENVIRONMENTAL STRESS, RADIOBIOLOGY, LASER, BIOMETRICS, BIOMEDICAL ENGINEERING, RDT&E ON MEDICAL EQUIPMENT AND SYSTEMS. WHOLE BODY COUNTER, HUMAN CENTRIFUGE, TESTING CELLS, RESEARCH CHAMBERS, TELETHERAPY COBALT 60 RADIATION SOURCE, RADIOFREQUENCY RADIATION FACILITY, ELECTRON MICROSCOPE SYSTEM, REMOTE INTERACTIVE GRAPHIC TERMINAL SYSTEM, THERMAL CHAMBER, CARDIAC CATH. LAB, AEROSP MED SCIENCE LAB, LASER HAZARD FACILITIES, AEROMEDICAL LIBRARY, AEROSP MED EVALUATION AND CONSULTATIVE SERVICES, OPTICAL RESEARCH AUDIOLOGY, VESTIBULAR STUDIES, PSYCHOBIOLOGY, RADIOISOTOPE, AEROMED STANDARDS, MODELING, BIOMED RESEARCH, MEDICAL REPOSITORIES, RADIATION SCIENCES RESEARCH, BIODYNAMICS RESEARCH, DEVELOP. ENGINEERING.

INSTALLATION: WEAPONS LABORATORY

KIRTLAND AFB, N.M.

DIR. DR. W.L. LEHMANN

CDR. COL. R.T. WHITE

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	178.185	168.522
TOTAL PROCUREMENT	0.000	0.000
TOTAL D&M	0.017	0.017
TOTAL OTHER	11.661	12.477
TOTAL ANNUAL LAB	189.863	181.016
TOTAL INHOUSE	64.683	63.468
TOTAL INHOUSE RDT&E	53.005	50.974
ANNUAL OPERATING COST	12.312	13.174

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF		
MILITARY	647	56	388		259
CIVILIAN	464	49	240		224
TOTAL	1111	105	628		483

ACRES	SPACE AND PROPERTY			TOTAL	COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN		OTHER	REAL PROP
702	553.923	105.574	125.118	784.515	76.06	68.493

#### ...MISSION

RESPONSIBLE FOR EXPLORATORY, ADVANCED, AND ENGINEERING DEVELOPMENT IN NUCLEAR WEAPONS EFFECTS, COMPONENTS, RADIATION HAZARDS, NUCLEAR SURVIVABILITY/VULNERABILITY, HIGH ENERGY LASER SYSTEMS, ADVANCED WEAPON TECHNOLOGY, AND LASER WEAPON TECHNOLOGY.

#### ...CURRENT IMPORTANT PROGRAMS

ADVANCED RADIATION TECHNOLOGY  
ADVANCED WEAPON TECHNOLOGY  
NUCLEAR SURVIVABILITY/VULNERABILITY ANALYSIS AND TESTING  
NUCLEAR SAFETY ANALYSIS AND DESIGN CRITERIA  
NUCLEAR WEAPONS EFFECTS ANALYSIS AND TESTING

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

NUCLEAR WEAPONS EFFECTS SIMULATION; SAFETY, COMPONENT ASSESSMENT AND ANALYSIS OF WEAPONS SYSTEMS NUCLEAR HARDNESS ARE CONDUCTED IN ENGINEERING TEST LABORATORIES AND PHYSICS LABORATORIES. SIMULATION TESTS ON MISSILES, AIRCRAFT, AND COMPONENTS USE ELECTROMAGNETIC PULSE SIMULATORS, GAS GUNS, AND X-RAY DEVICES. CIVIL ENGINEERING PROGRAMS USE SHOCK TUBES AND HIGH EXPLOSIVES FOR SIMULATION OF NUCLEAR BLAST AND SHOCK. LASER SYSTEMS DEVELOPMENT USES LASER/OPTICS LABORATORIES AND TEST RANGES WITH LARGE, HIGH POWER DEVICES. A TECHNICAL LIBRARY, METALLURGY AND METROLOGY LABORATORIES, 2 CYBER 176 AND 1 CDC-6600 COMPUTERS WITH REMOTE ACCESS TERMINALS AND MULTI-CHANNEL SENSING/RECORDING AND DATA REDUCTION SUPPORT ALL REQUIRING RDT/E PROGRAMS.



INSTALLATION: WESTERN SPACE AND MISSILE CENTER

VANDENBERG AFB, CA.

CDR. COL. W. M. BURKETT

TECH. DIR. DR J. A. MEANS

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	1.900	0.900
TOTAL PROCUREMENT	5.079	6.586
TOTAL U&M	72.860	82.258
TOTAL UTHR	7.261	7.867
TOTAL ANNUAL LAB	87.100	97.611
TOTAL INHOUSE	87.100	97.611
TOTAL INHOUSE RDT&E	1.900	0.900
ANNUAL OPERATING COST	0.296	0.326

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			NON- PROF
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	
MILITARY	356	4	231	125
CIVILIAN	368	0	152	216
TOTAL	724	4	383	341

ACRES	SPACE AND PROPERTY (THOUSANDS OF SQUARE FEET)			TOTAL	COST (MILLION \$)	
	LAB	ADMIN	UTHER		REAL PROP	EQUIP
55586	36.000	617.000	1199.000	1852.000	260.00	49.900

#### ...MISSION

MANAGE FIELD TEST AND LAUNCH OPERATIONS FOR SPACE DIVISION/OTHERS.  
DEVELOP MANAGE AND OPERATE THE WESTERN TEST RANGE AS A DESIGNATED  
NATIONAL RANGE.

#### ...CURRENT IMPORTANT PROGRAMS

ADVANCED BALLISTIC REENTRY SYSTEMS PROGRAMS.  
MINUTEMAN II OPERATIONAL TESTING PROGRAM.  
MINUTEMAN III R AND D AND OPERATIONAL TESTING PROGRAM.  
CLASSIFIED AND UNCLASSIFIED SPACE PGMS USING TITAN, ATLAS, THOR, AND SCOUT  
BOMARC MISSILE, TOMAHAWK CRUISE MISSILE, AIR-LAUNCHED CRUISE MISSILE.

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

WSMC CAPABILITIES INCLUDE TEST LAUNCH AND RANGE SUPPORT. TEST LAUNCH  
INCLUDES: ASSEMBLY AND PRELAUNCH TESTING OF LAUNCH VEHICLE SYSTEMS USING  
ATLAS, TITAN AND MM BOOSTERS; AGENA AND TITAN III UPPER STAGES; PAYLOAD  
AND VEHICLE INTEGRATION/CHECKOUT; AND LAUNCH CONTROL. WESTERN TEST RANGE  
SUPPORT INCLUDES NEAR AND FAR TERM RANGE INSTRUMENTATION PLANNING, AND  
DATA GATHERING ON BALLISTIC/SPACE/GUIDED MISSILE/PROBE LAUNCHES, AIRCRAFT  
AND OTHER TESTS AT UPRANGE AND DOWNRANGE LOCATIONS. RADAR, TELEMETRY,  
OPTICAL, DATA PROCESSING, COMMUNICATIONS AND COMMAND CONTROL SYSTEMS ARE  
AVAILABLE. LAUNCH AZIMUTHS VARY FROM 140 TO 313 DEGREES. AERONAUTICAL  
TESTS ARE CONDUCTED IN AN INSTRUMENTED OFFSHORE OPERATING AREA. LAUNCH  
FACILITIES AND RANGE INSTRUMENTATION CAN BE RECONFIGURED TO MEET PROGRAM  
REQUIREMENTS.

INSTALLATION: 4950 TEST WING

WPAFB, OH.

CDR. COL. D. T. WARD

TECH. DIR. MR. P. J. CORCORAN

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	51.984	56.759
TOTAL PROCUREMENT	0.000	0.000
TOTAL O&M	2.221	2.332
TOTAL UTHER	0.013	0.014
TOTAL ANNUAL LAB	54.218	59.105
TOTAL INHOUSE	43.381	46.686
TOTAL INHOUSE RDT&E	41.147	44.340
ANNUAL OPERATING COST	0.015	0.015

PERSONNEL	PERSONNEL DATA (END OF FY 1979)				NON-PROF
	AUTHORIZED STRENGTH	TOTAL PHGS	TOTAL PROF		
MILITARY	854	2	169		685
CIVILIAN	1028	0	98		930
TOTAL	1882	2	267		1615

ACRES	SPACE AND PROPERTY				COST (MILLION \$)	
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	UTHER	TOTAL	REAL PROP
227	0.000	68.176	961.590	1029.766	15.35	406.133

#### ...MISSION

ODD MAJ TEST FAC. PERFORMS T&E ON MIL SYS, SUBSYS, AND COMP. OPER & MAIN ASGN TEST SUP ACFT AND ANCL EQUIP. MANAGES A CENTRAL FAC FOR MAJ MOD OF AFSC ACFT. OPER SHOP FAC IN SUP OF CMD ACFT CLASS II MODS AND AFWAL R&D PRGMS. PROVIDES FLT TST ENGRG, TECH DATA ACQ, AND TECH PHOTO SVCS.

#### ...CURRENT IMPORTANT PROGRAMS

POSEIDON  
ARIA SUPPORT TO AIR LAUNCH CRUISE MISSILE  
LASER INFRARED DEMONSTRATOR SYSTEM  
AFFTC TANKER SUPPORT  
COHERENT EMITTER LOCATION TEST BED

#### ...FUNCTIONS/EQUIPMENT/CAPABILITIES

43 TEST SUPPORT AIRCRAFT (8 ARIA EC-135)  
ALL AFSC MAJOR CLASS II AIRCRAFT MODIFICATIONS  
MISSILE LAUNCH/REENTRY TRACKING AND DATA RELAY  
WORLDWIDE TEST SUPPORT CAPABILITY  
1400 SQUARE MILE RESTRICTED TEST AREA IN OHIO  
FLIGHT TEST ENGINEERING (AERO-MECHANICAL, AVIONICS, AND ARTA)  
TEST DATA ACQUISITION/PROCESSING/ANALYSIS  
3 OPERATIONAL SQS (FLIGHT CREWS) AND 3 MAINTENANCE SQS  
SPECIALIZED SHOP EQUIP METAL/WOOD WORKING, MODELING, & DATA AUTOMATION  
TECHNICAL PHOTOGRAPHIC INSTRUMENTATION & PROCESSING  
CENTRAL AFSC AT WPAFB PMEL SERVICES  
ASD LABORATORY MATERIAL CONTROL ACTIVITY

INSTALLATION: 6585TH TEST GROUP

HOLLAMAN AFB, N.M.

VACANT

PROGRAM	PROGRAM DATA BY FISCAL YEAR (MILLION \$)	
	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	16.292	16.026
TOTAL PROCUREMENT	0.000	0.000
TOTAL U&M	4.355	4.545
TOTAL OTHER	4.709	5.039
TOTAL ANNUAL LAB	25.356	25.610
TOTAL INHOUSE	14.444	14.164
TOTAL INHOUSE RDT&E	9.735	9.125
ANNUAL OPERATING COST	0.100	0.120

PERSONNEL	PERSONNEL DATA (END OF FY 1979)			
	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	325	3	74	251
CIVILIAN	286	3	97	189
TOTAL	611	6	171	440

ACRES	SPACE AND PROPERTY				COST (MILLION \$)		
	SPACE (THOUSANDS OF SQUARE FEET)	LAB	ADMIN	OTHER	TOTAL	REAL PROP	EQUIP
6602	386.000	7.000	163.000	556.000	102.66	53.700	

...MISSION

DOD FOCAL POINT FOR FLIGHT, LAB AND SLED T&E OF INERTIAL GUIDANCE SYS & COMPONENTS. HIGH SPEED TRACK FOR AERODYNAMIC, EJECTION, IMPACT, RAIN-FIELD, GUIDANCE & BLAST INTERACTION. RADAR CROSS SEC & ANTENNA PATTERNS OF A/C, SPACECRAFT, RVS. A/C SPT FOR IN-HOUSE & TRANSIENT REQUIREMENTS.

...CURRENT IMPORTANT PROGRAMS

RADAR CROSS SECTION MEASUREMENTS OF THE JOINT CRUISE MSL  
MX MSL GUIDANCE SYS AND COMPONENTS TESTING  
B-52 OFFENSIVE AVIONICS SYSTEM TESTING  
ADVANCED GUIDANCE TECHNOLOGY TESTING IN SPT OF ABRES  
AIRCRAFT NAVIGATION SYS VERIFICATION, PROJECT 6886

...FUNCTIONS/EQUIPMENT/CAPABILITIES

PRECISION REFERENCE/DATA COLLECTION, ENVIRONMENTAL CHAMBERS  
INERTIAL NAV TEST VAN 508788 FT TEST TRACK (2-RAIL, 35588 FT, 3-RAIL 15200 FT), 5 BLOCKHOUSES, 2 INSTRMN STATIONS, 9000 FT TRACKSIDE, 2000 FT BALL RAINFIELD. ROCKET SLED / PROPULSION SYSTEM INV. RADAR TARGET SCATTER FACILITY TO MEASURE RADAR CROSSSECTION / ANTENNA PTRNS FROM 30 MHZ TO 95 GHZ.  
MEASURE MONOSTATIC / BISTATIC AMP, PHASE, DOPPLER, GLINT AND JET ENGINE MODULATION. IR SIGNATURE MEASUREMENT CAPABILITY.

INSTALLATION: ARMED FORCES RADIOBIOLOGY RSCH. INSTITUTE

BETHESDA, MD.

CDR. CAPT. PAUL E. TYLER

PROGRAM DATA BY FISCAL YEAR (MILLION \$)

PROGRAM	1979 (ACTUAL)	1980 (ACT + EST)
TOTAL RDT&E	7.578	8.120
TOTAL PROCUREMENT	0.000	0.000
TOTAL DEM	0.000	0.000
TOTAL UTHER	1.943	2.262
TOTAL ANNUAL LAB	9.521	10.382
TOTAL INHOUSE	9.521	10.382
TOTAL INHOUSE RDT&E	7.578	8.120
ANNUAL OPERATING COST	1.836	1.973

PERSONNEL DATA (END OF FY 1979)

PERSONNEL	AUTHORIZED STRENGTH	TOTAL PHDS	TOTAL PROF	NON- PROF
MILITARY	88	32	58	30
CIVILIAN	128	20	42	86
TOTAL	216	52	100	116

SPACE AND PROPERTY

ACRES	SPACE (THOUSANDS OF SQUARE FEET)			COST (MILLION \$)	
	LAB	ADMIN	OTHER	TOTAL REAL PROP	EQUIP
10	42.335	21.049	56.834	120.218	7.91 5.532

...MISSION

THE MISSION OF AFRRRI SHALL BE TO CONDUCT SCIENTIFIC RESEARCH IN THE FIELD OF RADIOBIOLOGY AND IN THE RELATED MATTERS THAT ARE ESSENTIAL TO THE MEDICAL SUPPORT OF THE DEPARTMENT OF DEFENSE

...CURRENT IMPORTANT PROGRAMS

DEFINE PHYSIOLOGICAL/PATHOLOGICAL RESPONSE IN HUMANS TO RADIATION.  
ASSESS EFFECTS OF COMBINED INJURIES, MILITARY FORCES/NONCOMBATANTS.  
DATA FOR PREDICTION OF COMBAT INEFFECTIVENESS AND CASUALTY PRODUCTION.  
TREATMENT METHODS FOR CASUALTIES FROM RADIATION/COMBINED INJURY.  
INSTRUCTION TO ARMED SERVICES ON TREATMENT OF NUCLEAR CASUALTIES.

...FUNCTIONS/EQUIPMENT/CAPABILITIES

FUNCTIONS: OPERATE FACILITIES FOR CONDUCTING RADIOBIOLOGY RESEARCH AND DISSEMINATING RESULTS; CONDUCT ADVANCED TRAINING; OPERATE FACILITIES FOR PRODUCTION OF SHORT-LIVED RADIOISOTOPES; AND PERFORM OTHER SUCH RESEARCH FUNCTIONS AS REQUIRED. MAJOR EQUIPMENT INCLUDES: PULSE AND STEADY STATE NUCLEAR REACTOR, 2000,000-CURIE COBALT-60 IRRADIATOR, ELECTRON LINEAR ACCELERATOR ASSOCIATED EXPOSURE ROOM COMPLEXES  
SUPPORT SERVICES INCLUDE: MEASUREMENT OF RADIATION FIELDS, PROVISION AND CARE OF LABORATORY ANIMALS, EQUIPMENT DESIGN AND FABRICATION ASSISTANCE, REAL-TIME DATA ACQUISITION SYSTEM, TELEVISION AND FILM DOCUMENTATION OF EXPERIMENTS, PERSONNEL AND ENVIRONMENTAL MONITORING, EDITORIAL ASSISTANCE IN REPORT PREPARATION, AND A LARGE TECHNICAL LIBRARY

APPENDIX I

DISESTABLISHMENT, ESTABLISHMENT OR CHANGES IN ORGANIZATION OR NAME\*

DEPARTMENT OF THE ARMY

AS OF OR PRIOR TO 1 OCTOBER 1979

AIRCRAFT DEVELOPMENT TEST ACTIVITY  
Fort Rucker, AL

DISESTABLISHED

AVIATION DEVELOPMENT TEST ACTIVITY  
Fort Rucker, AL

ESTABLISHED  
Name change from Aircraft  
Development Test Activity

BIOMEDICAL R&D LABORATORY  
Aberdeen Proving Ground, MD

ESTABLISHED  
Formerly part of Chemical  
Systems Laboratory

ELECTRONICS R&D TECHNOLOGY SUPPORT ACTIVITY  
Ft Monmouth, NJ

DISCONTINUED  
from this publication. Does  
not meet criteria for ROT&E  
funding.

DEPARTMENT OF THE NAVY

MEDICAL RESEARCH UNIT NO. 2  
Manila, Philippines

ESTABLISHED

MEDICAL RESEARCH UNIT NO. 2  
Taipei, Taiwan

DISESTABLISHED

NAVAL AIR ENGINEERING CENTER  
Lakehurst, NJ

DISCONTINUED  
from this publication. Does  
not meet criteria for RDT&E  
funding.

DEPARTMENT OF THE AIR FORCE

AEROSPACE MEDICAL R&D LABORATORY  
Wright Patterson AFB, Ohio

ESTABLISHED  
Name change from 6570 Aero-  
space Medical R&D Lab

APPENDIX I

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DEPARTMENT OF THE AIR FORCE (contd)

AS OF OR PRIOR TO 1 OCTOBER 1979

ARMAMENT DEVELOPMENT AND TEST CENTER Eglin AFB, Florida	DISESTABLISHED
ARMAMENT DIVISION Eglin AFB, Florida	ESTABLISHED Name change from Armament Development and Test Center
EASTERN SPACE & MISSILE CENTER Patrick AFB, Florida	ESTABLISHED Changed from Space and Missile Test Center (Det 1)
ENGINEERING SERVICES CENTER DET 1 Tyndale AFB, Florida	DISESTABLISHED
ENGINEERING SERVICES CENTER/RD Tyndale AFB, Florida	ESTABLISHED Name change from Engineering Services Center Det 1,
SPACE AND MISSILE TEST CENTER Vandenburg AFB, CA	DISESTABLISHED
SPACE AND MISSILE TEST CENTER (DET 1) Patrick AFB, Florida	DISESTABLISHED
WESTERN SPACE AND MISSILE CENTER Vandenburg AFB, CA	ESTABLISHED Name change from Space & Missile Test Center
6570 AEROSPACE MEDICAL R&D LABORATORY Wright Patterson AFB, Ohio	DISESTABLISHED

\* Changes since publication of Department of Defense In-House RDT&E Activities, 30 October 1978.

## APPENDIX II

### Definitions

1. IN-HOUSE RDTE ACTIVITIES--Those organizational entities engaged in performing work in any or all of the categories of research, development, test, and evaluation. The RDTE effort, however, should represent a minimum of 25 percent of the total effort of each entity reporting in order to be considered as an RDTE activity.

2. PROFESSIONALS--Full-time government scientific and engineering personnel actively engaged in RDTE activities. In the case of civilians this will include all those holding positions that fall into the following categories under the Civil Service Occupational Groups and Series of Classes, General Schedule:

101 Social Science	660 Pharmacist
150 Geography	662 Optometrist
180 Psychology	665 Speech Pathology and Audiology
184 Sociology	668 Podiatrist
190 General Anthropology	680 Dental Officer
193 Archeology	690 Industrial Hygiene
401 Biology	695 Food and Drug Officer
403 Microbiology	696 Food and Drug Inspection
405 Pharmacology	701 Veterinary Medical Science
438 Ecology	801 General Engineering
410 Zoology	803 Safety Engineering
413 Physiology	804 Fire Prevention Engineering
414 Entomology	806 Materials Engineering
430 Botany	807 Landscape Architecture
434 Plant Pathology	808 Architecture
435 Plant Physiology	810 Civil Engineering
436 Plant Quarantine & Pest Control	819 Sanitary Engineering
437 Horticulture	830 Mechanical Engineering
440 Genetics	840 Nuclear Engineering
454 Range Conservation	850 Electrical Engineering
457 Soil Conservation	855 Electronic Engineering
460 Forestry	861 Aeronautics Engineering
470 Soil Science	871 Naval Architecture
471 Agronomy	880 Mining Engineering
480 General Fish & Wildlife	881 Petroleum Production and Natural Gas Engr.
482 Fishery Biology	890 Agriculture Engineering
486 Wildlife Biology	892 Ceramic Engineering
487 Husbandry	893 Chemical Engineering
498 Home Economics	894 Welding Engineering
601 General Health	895 Industrial Engineering
602 Medical Officer	1221 Patent Adviser
644 Medical Technologist	1223 Patent Classifying
	1224 Patent Examining
	1225 Patent Interference Examining

1226	Design Patent Examining	1370	Cartography
1301	Physical Science Administration	1372	Geodesy
1306	Health Physics	1380	Forest Products Technology
1310	Physics	1382	Food Technology
1313	Geophysics	1384	Textile Technology
1315	Hydrology	1386	Photographic Technology
1320	Chemistry	1510	Actuary
1321	Metallurgy	1515	Operations Research
1330	Astronomy and Space Science	1520	Mathematics
1340	Meteorology	1529	Mathematical Statistician
1350	Geology	1530	Statistics
1360	Nautical Science	1540	Cryptography
		1550	Computer Sciences

Military professionals, both officer and enlisted, actively engaged in RDTE activities should be identified with the functions described in the above referenced civilian job series. Lawyers, accountants, chaplains, social workers, and educators should be excluded.

3. TECHNICIANS--Generally nonprofessionals working on an RDTE project or program in support of a professional. In the case of civilians, it will include, but will not necessarily be limited to, those holding positions that fall into the following categories of the Civil Service Occupational Groups and Series of Classes, General Schedule:

181	Psychological Technician	682	Dental Hygiene
404	Biological Laboratory Technician	683	Dental Laboratory Technicians
421	Plant Pest Control Technician	698	Environmental Health Technician
455	Range Technician	699	Medical Aid
458	Soil Conservation Technician	704	Animal Health Technician
462	Forestry Technician	802	Engineering Technician
622	Medical Aid (Sterile Supplies)	817	Surveying Technician
625	Morgue Attendant	818	Engineering Drafting
636	Physican Medicine & Rehabilitation Therapy Asst	856	Electronic Technician
642	Nuclear Medicine Technician	895	Industrial Engineering Technician
645	Medical Technician	1311	Physical Science Technician
646	Pathology Technician	1316	Hydrologic Technician
647	Medical Radiology Technician	1341	Meteorological Technician
649	Medical Machine Technician	1371	Cartographic Aid
650	Medical Technical Asst	1374	Geodetic Technician
661	Pharmacy Technician	1521	Mathematics Technician
667	Orthopotist and Prosthetist	1531	Statistical Clerical & Administrative
681	Dental Assistant	1541	Cryptanalysis



Discretion will have to be exercised by each RDT&E activity in determining the number of military technicians. Generally, they should follow the guidelines established in defining civilian technicians and can be identified in DOD 1312.1-E.

4. REAL PROPERTY COST--Each reporting activity will be responsible for determining and reporting the cost of real property. This cost should be established in accordance with the guidelines and definitions in DOD Instruction 4165.14. This should also include the cost of installed equipment.

5. EQUIPMENT COST--Each reporting activity will be responsible for determining and reporting the cost of personal property. This cost should be established in accordance with the guidelines and definitions in DOD Instruction 4165.14. This should also include the cost of installed equipment.

6. SPACE--The data to be furnished should include only walled and roofed building space. It should not include such things as parking lots, open storage areas, lean-tos, etc. The source of data may be the annual report submitted in compliance with the requirements of DOD Instruction 4165.14.

7. IN-HOUSE OBLIGATIONS--Obligations reported under this category are for activities performed, or to be performed, by the organizational entity. Their work is carried on directly by their own personnel. Particular care should be taken to include under in-house performance the cost of supplies and equipment essentially of an off-the-shelf nature that are procured for use in in-house research and development, plus such things as travel, publications, and other types of services in support of in-house functions and M.P.A. Excluded from the in-house total are expenses for planning and administering programs by DOD personnel of contracts and grants for out-of-house work and M.C.A.

8. OUT-OF-HOUSE OBLIGATIONS--Obligations reported under this category are for activities performed, or to be performed, by other than the organizational entity. Out-of-house performers may include other departmental or DOD organizational entities, industrial firms, educational institutions, not-for-profit institutions, and private individuals. Included as out-of-house work are all expenses paid the out-of-house performers, as well as the expenses incurred in planning and administering these programs by personnel of the organizational entity. This would also include travel and other supporting services.

9. ANNUAL OPERATING COST--This should generally reflect the overhead cost of operating the laboratory or facility. It should include such things as costs of utilities, rents, janitorial services, guard and fire protection, support services such as supply personnel, printing, maintenance of buildings and grounds, etc. It should not include the salaries of direct labor personnel such as scientists, engineers, technicians, draftsmen, machinists, etc.

### APPENDIX III

#### Selected Standard Abbreviations and Acronyms

AAM -- air-to-air missile	GCA -- ground-controlled approach
AAW -- anti-air warfare	
ADPE -- automatic data-processing equipment	HF -- high-frequency
AEDC -- Arnold Engineering Development Center	IFF -- identification, friend or foe
AFMDC -- Air Force Missile Development Center	IR -- infrared
AFSC -- Air Force Systems Command	MPT -- military potential test
AFWET -- Air Force weapons effectiveness testing	NAF -- Naval Air Facility
APG -- Aberdeen Proving Ground	NASA -- National Aeronautics and Space Administration
ARPA -- Advanced Research Projects Agency	NASC -- Naval Air Systems Command
ASW -- antisubmarine warfare	NAVORD -- Naval Ordnance Systems Command
AUS -- Army United States	NAVSHIP -- Naval Ship Systems Command
	NEMP -- nuclear electromagnetic propagation
BIS -- Board of Inspection and Survey	PI -- product improvement
BW -- biological warfare	POL -- petroleum oil, lubricants
CBR -- chemical, biological radiological	QA -- quality assurance
CE -- Chief of Engineers, Army	QMDO -- qualitative materiel development objective
CG -- commanding general	QMR -- qualitative materiel requirement
CNO -- Chief of Naval Operations	RDT&E -- Research, development, test and evaluation
COMEL -- communications electronics	RF -- radio frequency
	RV -- reentry vehicle
DA -- Department of the Army	SATS -- short airfield tactical support
DARCOM -- Department of the Army Materiel and Readiness Command	SDR -- small development requirement
DASA -- Defense Atomic Support Agency	SI -- ship installation
DOD -- Department of Defense	SP -- self-propelled
DZ -- drop zone	ST -- service test
	T&E -- test and evaluation
ECM -- electronic countermeasures	TOTO -- Tongue-of-the Ocean
ED -- engineering development	UDT -- underwater demolition team
EDT -- engineering development & test	ULMS -- Undersea Long-Range Missile System
EEG -- electroencephalogram	USATECOM -- US Army Test and Evaluation Command
EKG -- electrocardiogram	UTTAS -- utility tactical transport aircraft system
ELINT -- electronic intelligence	USW -- undersea warfare
EMP -- electromagnetic propagation	UV -- ultraviolet
EMW -- electromagnetic warfare	
EODC -- Explosive Ordnance Disposal Center	V/STOL -- vertical/short takeoff and landing
ET -- engineering test	
FA -- field artillery	
FBM -- fleet ballistic missile	

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